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The Need for a Strategic Approach to Contingency Contracting

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The Need for a Strategic Approach to Contingency Contracting

By: **Anthony F. D'Angelo**
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December 2007

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13. ABSTRACT ***(maximum 200 words)***

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This project applies the principles of competitive advantage and with them, creates a strategic approach to contingency contracting operations. This paper first recommends the DoD create a centralized activity, such as Joint Contracting Command-Iraq/Afghanistan, to consolidate contracting activities within a Combatant Commander's contingency theater. Secondarily, this discussion suggests the DoD initiate spend analysis of all contracting activities within Combatant Command geographic regions. The DoD can identify opportunities to capture maximum value from key regional suppliers. This framework emphasizes achieving Combatant Commanders' objectives.

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THE NEED FOR A STRATEGIC APPROACH TO CONTINGENCY CONTRACTING

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Submitted in partial fulfillment of the requirements for the degree of

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THE NEED FOR A STRATEGIC APPROACH TO CONTIGENCY CONTRACTING

ABSTRACT

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LIST OF ACRONYMS

AAR	After-action Report
AMC	Army Material Command
AMIC	Acquisition Management Integration Center
AOR	Area of Responsibility
BTA	Business Transformation Agency
C2	Command and Control
CAIV	Cost as an Independent Variable
CASO	Contingency Acquisition Support Office
CCO	Contingency Contracting Officer
CCSP	Contingency Contracting Support Plan
CJCS	Chairman Joint Chiefs of Staff
CJTF	Combined Joint Task Force
COCOM	Combatant Command
CPA	Coalition Provisional Authority
CSTC-A	Combined Security Transition Command-Afghanistan
DAU	Defense Acquisition University
DLA	Defense Logistics Agency
DLR	Depot-level Repairable
DoD	Department of Defense
DWSS	Defense-wide Strategic Sourcing
EPC	Engineering, Procurement, and Construction
FAR	Federal Acquisition Regulations
FRAGO	Fragmentation Order
GAO	Government Accountability Office
GRD	Gulf Region Division
GWOT	Global War on Terrorism
HCA	Head of Contracting Activity
ICD	Initial Capabilities Document
IPT	Integrated Product Teams
IRMO	Iraq Reconstruction Management Office
ITCC	Information Technology Commodity Council
JAC	Joint Acquisition Command
JCC-I	Joint Contracting Command-Iraq
JCC-I/A	Joint Contracting Command-Iraq/Afghanistan
JCIDS	Joint Capabilities Integration and Development System
JCS	Joint Chiefs of Staff
JFC	Joint Force Commander
JOPES	Joint Operation Planning Execution System
JPEC	Joint Planning and Execution Community
JSPS	Joint Strategic Planning System
LOGCAP	Logistics Civil Augmentation Plan
MDA	Milestone Decision Authority

MNC-I	Multi-National Corps-Iraq
MNF-I	Multi-National Force-Iraq
MNSTC-I	Multi-National Security Transition Command-Iraq
MOD	Ministry of Defense
MOI	Ministry of Interior
MSC	Major Subordinate Command
NCA	National Command Authority
NME	National Military Establishment
NSC	National Security Council
ODS	Operation Desert Storm
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
OMB	Office of Management and Budget
OPLAN	Operational Plan
OPORD	Operational Order
ORHA	Office of Reconstruction and Humanitarian Assistance
PARC	Principle Assistant Responsible for Contracting
PCO	Project and Contracting Office
PDA	Personal Data Assistants
PEpC	Procurement, Engineering, procurement, and Construction
PM	Program Manager
PMO	Program Management Office
PPBES	Planning, Programming, Budgeting, and Execution System
PSM	Purchasing and Supply Management
RRP	Rapid Response Process
SAP	Simplified Acquisition Procedures
SAT	Simplified Acquisition Threshold
SSCG	Strategic Sourcing Coordination Group
SSDB	Strategic Sourcing Directors Board
TLCSM	Total Lifecycle Systems Management
US	United States
USC	United States Code
USACE	United States Army Corps of Engineers
USAFRICOM	United States Africa Command
USCENTCOM	United States Central Command
USEUCOM	United States European Command
USJFCOM	United States Joint Forces Command
USNORTHCOM	United States Northern Command
USPACOM	United States Pacific Command
USSOCOM	United States Special operations Command
USSOUTHCOM	United States Southern Command
USSTRATCOM	United States Strategic Command
USTRANSCOM	United States Transportation Command

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Captain Anthony D'Angelo received a Masters of Business Administration degree from the Naval Postgraduate School in December of 2007. Captain D'Angelo also has a Bachelor of Science degree in Economics from the Florida State University. He has served over 4 years as an Air Force Contracting Officer and includes a six month deployment to the International Zone in Baghdad, Iraq under the Joint Contracting Command-Iraq/Afghanistan as a one million dollar warranted contracting officer. Specifically, he was assigned to support the Coalition Military Assistance and Training Team, Multi-National Transitional Command Iraq (MNSTCI). He provided base support and security service contracts to coalition forces at Phoenix Base, headquarters MNSTCI, and to thirty-thousand regionally dispersed Iraqi military at Habbaniyah, Tal Afar, Al Kasik, Taji, Rustamiyah, and Al Muthana Air Base until contract transition over to the Iraqi Ministry of Defense and Iraqi Security Forces. In 2006, Captain D'Angelo received Air Combat Command's Contingency Contracting Officer of the Year Award.

Lieutenant Danny Houglan received a Masters of Business Administration degree from the Naval Postgraduate School in December of 2007. Lieutenant Houglan also has a Bachelor of Science degree in Interdisciplinary Studies from Norfolk State University. He has served over 8 years as a Navy Supply Corps Officer. His recent experience includes a six month deployment in an Individual Augmentation billet at the Joint Contracting Command-Iraq/Afghanistan. Specifically, he was assigned as the Assistant Operations Officer responsible for tracking a myriad of contingency contracting issues and reporting contracting actions. Lieutenant Houglan's principal duty was the implementation of a modified automated contract tracking tool, developed by the Air Force Central Command, throughout all of the regional contracting centers in Iraq and Afghanistan. He maintained the central repository of all contracting actions that fell under the cognizance of the Joint Contracting Command. This information was used for reporting to the Commander of the Multi-National Forces – Iraq and to the Deputy Assistant Secretary of the Army for Acquisition, Logistics and Technology.

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EXECUTIVE SUMMARY

This paper presents a strategic approach to contingency contracting operations. The vast amount of contracting support within both Combatant Command's regional contingency theaters and geographic theaters presents opportunities through which the DoD can capture more value. Additional value is captured by rationalizing suppliers into a framework to achieve Combatant Command's strategic objectives. First, a central contingency contracting organization needs to establish command and control over theater-wide contracting requirements. Obligation authority is a key strategic tool—one which Combatant Commanders do not possess. This tool needs to align with the Combatant Commanders' strategic contingency objectives. For example, this strategic tool can not only rebuild a country, but can also work to ensure the long-term sustainability of key strategic markets such as cement production, metal works, and facility and infrastructure repair. Second, a spend analysis of geographic suppliers can rationalize the supply base, which identifies opportunities to decrease cost by more than the subsequent trade-off to product value or opportunities to increase product value by more than the subsequent trade-off to cost. In the commercial sector, these trade-offs enhance competitive market position and relate directly to competitive advantage. Third, identifying key regional suppliers through spend analysis can both aid in planning and executing contingency contracting operations and increase the value DoD captures in geographic markets.

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I. INTRODUCTION

The purpose of this chapter is to present a broad overview for the need of a strategic approach to contingency contracting. The Department of Defense (DoD) no longer perceives procurement as a tactical function; consequently, the DoD's acquisitions are shifting from a transaction-oriented mission to a strategic-oriented enterprise (Rendon, 2005). According to the DoD, strategic sourcing is a collaborative and structured process of analyzing an organization's spend and using the information to make business decisions about acquisition commodities and services more effectively and efficiently (OUSD, 2007). The DoD, the largest global purchasing entity, recognizes the value of strategic sourcing and is transforming military acquisitions by implementing strategic sourcing initiatives (OMB, 2005). However, these initiatives target most of the acquisition spectrum with the exception of contingency contracting. This paper views the acquisition spectrum, Figure 1, ranging across major acquisitions, operational contracting, and contingency contracting. Thus, if a strategic approach is deemed valuable to implement on one end of the spectrum, this research investigates whether it will add value to the other side as well.

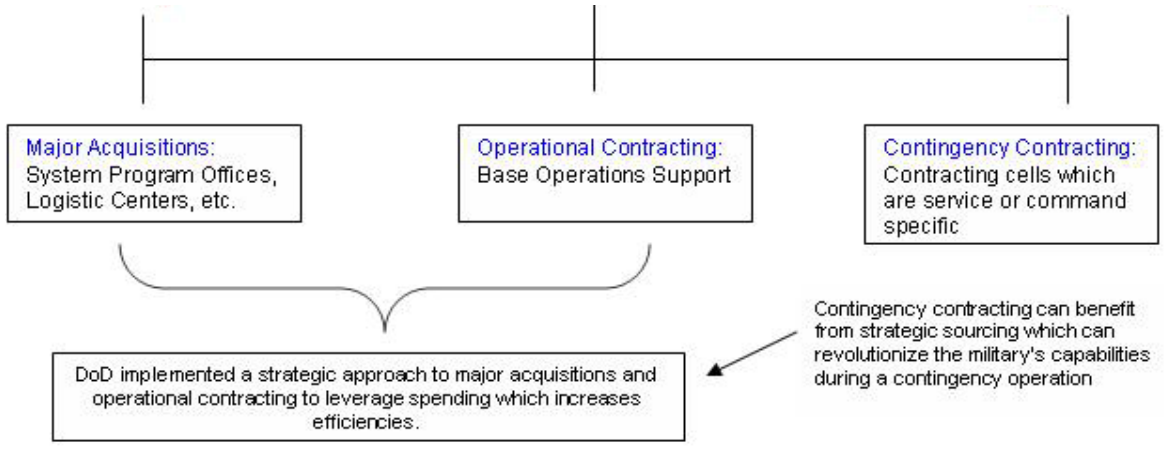

Figure 1. DoD Acquisition Spectrum

A. PROBLEM

Recent contingency operations have consisted of numerous uncoordinated efforts to provide extraordinary amounts of contracted support. As the military reduces organic capability, procurement becomes a key strategic function to meet the increasing requirements. The DoD needs to shift to a geographic enterprise-wide procurement approach from its current tactical orientation. The planning and execution of contingency contracting within a strategic framework will allow for better alignment with the combatant commander's strategic objectives. Viewing contingency contracting as a tactical function can inundate the battlefield with excessive contracting units. This presents several potential problems for the DoD— specifically, inefficient use of scarce resources, vulnerability of supply disruptions, insufficient planning to support the strategic objectives, and several policy and contract accountability chains.

Efficient use of scarce resources, specifically personnel and money, is critical during a contingency. A tactical approach fragments DoD-wide service and commodity support requirements as well as resources for the Army, Air Force, Navy, and Marine Corps and their field offices to execute. Tactical contracting units are procuring similar requirements, often in close proximity to one another, without coordinating or consolidating across units and agencies. Consequently, many local transactions are duplicating the same personnel efforts. Many transactions decrease economies of scale and leverage over suppliers (Kraljic, 1983). The problem compounds when units then compete for the same local goods and services.

A tactical view uses contracting as buyers with high variation and little specialization. Many dealings with local external sources and the consequential lack of specialization limits foresight of possible supply disruptions. Tactical contracting deals with 2nd- and 3rd-tier suppliers instead of dealing with the 1st-tier or main providers of a commodity or service. Each tactical unit executes the fragmented requirements in its own interests without sight of the joint strategic supply chain and battlefield.

The lack of a strategic vision tends to render contingency contracting a reactive function. Tactical contracting units are reacting to support predictable and widespread requirements. A strategic framework could proactively engage these requirements during the contingency planning phase. Underestimating the strategic importance of the

contracting function prior to a contingency appears to result in unrealized capabilities and lack of cost savings. An inefficient and uncoordinated network of tactical contracting units may be an additional consequence of inadequate planning.

Fragmenting DoD requirements to multiple agencies also fragments contract visibility and accountability. Multiple DoD agencies have contract authority to support the combatant commander, who is responsible for the entire battlefield and geographic region. Agencies create tactical contracting frameworks of sub-units which do not directly align to the combatant commander. This lack of coordination reduces contract visibility and accountability across the entire battlefield and region. Tactical contingency contracting does not provide the combatant commander a regional organization or framework in which to maximize the impact of contingency contracting planning and support of strategic objectives. Aggregating the requirements back to the strategic level can proactively engage internal variables and external threats to the supply chain to effectively and efficiently support mission requirements through service and commodity sourcing strategies.

B. BACKGROUND

Global industry leaders understand the strategic importance of purchasing. Many high-performance companies are now focusing on core competencies and relying on external sources for non-core activities. The application of a strategic approach to purchasing has resulted in significant cost savings to industry leaders (Rendon, 2005). These commercial powerhouses use procurement strategies to leverage their purchases through select strategic suppliers rather than multiple vendors. Each firm's procurement strategy is a component of the overall business strategy to gain and maintain a competitive advantage over competitors.

Similar to the commercial sector, the DoD continues to decrease its organic capability to focus on its core competencies and rely on external sources for non-core activities. As internal capability decreases, the scope and strategic importance of the contracting function increases to support these core competencies. Current DoD and service-component business transformation efforts tailor commercial best practices toward the more efficient and effective use of scarce resources to train and equip the warfighter (Defense Business Transformation Agency, 2006a). Collectively, such best

practices point toward a shift from tactical or transaction purchasing to strategic sourcing. Tactical purchasing employs a majority of personnel as ordering agents and places few at strategic levels. The inverse is a strategic approach to procurement, which focuses a majority of personnel toward strategic supply management. Aggregating tactical requirements emphasizes service and commodity sourcing strategies. These strategies create purchasing leverage and economies of scale to effectively and efficiently equip the warfighter (Moore, Baldwin, Camm & Cook, 2002).

Service components are responsible to train and equip the warfighter while geographical combatant commands conduct military wartime contingency operations. Each service provides trained and equipped forces to the combatant commanders—giving the commanders the capability to execute contingency operations. Although these capabilities consist of each service's core competencies, the combatant commanders are left with a support void that can only be filled with external resources. However, combatant commanders do not have contracting authority to meet the requirements resulting from this support void. Instead, the combatant commanders rely on the services to provide the necessary contracting support to fill the void, resulting in multiple contracting activities operating throughout the contingency theater and geographic region. This presents the DoD with the opportunity to create more value by applying a strategic approach to contracting—aligning contracting strategy with the objectives of the combatant commander.

C. PURPOSE

The objective of this research is to explore the application of a strategic approach to contingency contracting operations to more effectively and efficiently plan and support contingency operations. From a view above the tactical landscape, a strategic approach fulfills all requirements to achieve the mission. From this view, contingency contracting support will operate within a framework to conduct internal and external supply management at a strategic level while maintaining tactical support and relationships with the end-user. Such a view of the dynamic contingency landscape allows contracting to proactively manage the supply chain to support core competencies.

This report will assess the value of a strategic approach to contingency contracting operations. It will evaluate the extent to which a strategic approach might be

as important and viable in a contingency as it is in the DoD's current state-side strategic sourcing transformation. During the last few years, business transformation initiatives within the DoD have overlooked contingency contracting. Best practices from private industry, as well as the DoD's existing strategic sourcing initiatives, will be examined. Through this analysis, the research will illustrate a potential solution to alleviate the current contingency contracting problems. This solution will place an emphasis on shifting from tactical and reactive contracting to strategic and proactive contracting by implementing a strategic framework to contingency contracting operations.

D. SIGNIFICANCE OF RESEARCH

The military's organic capabilities have significantly diminished, which is triggering a high demand for external capabilities (Zamparelli, 1999). This is transforming contingency contracting into a strategic function. In today's environment, the success of a contingency operation does not solely rest upon the military's organic capabilities; rather, it heavily depends on the ability to leverage external capabilities. Implementing a strategic approach can increase the value DoD can capture from external suppliers, aid in the planning of contingency operations, and directly align with combatant commanders' strategic objectives.

E. RESEARCH QUESTIONS

The primary research question of this study is: How can a strategic approach be applied to contingency contracting? From this question, secondary questions will aide in determining the need for applying a strategic approach to contingency contracting:

- What value can be added by implementing a strategic approach to contingency contracting?
- How does the DoD capture more value by using principles of competitive advantage from industry?
- What commercial and military best practices are applicable to a strategic contingency contracting framework?
- How can the DoD integrate contingency contracting at the strategic level to leverage and manage the supply chain?

F. ORGANIZATION AND METHODOLOGY OF THE RESEARCH

Following this introduction, Chapter II will begin with a literature review of strategy and competitive advantage. Classic models on strategic approaches to purchasing and supply management will follow. From this foundation, commercial and military initiatives will illustrate how these best practices enhance core competencies and create additional value for the warfighter. Chapter III will provide a background on contingency contracting, both past operations and those transforming contingency contracting today—specifically, Operation Enduring Freedom (OEF) in Afghanistan and Operation Iraqi Freedom (OIF) in Iraq. A thorough review of after-action reports (AAR) from contingency contracting officers (CCO) who have redeployed, interviews with senior DoD acquisition professionals, and other governmental reports will enable the authors to determine the need for a strategic approach to contingency contracting. Chapter IV will apply strategic theories and best practices discussed in Chapter II to the current problems in contingency contracting revealed in Chapter III. Chapter V will provide an overall conclusion that suggests a strategic contingency contracting framework to better support operations; it will also include recommendations for additional research.

G. SUMMARY

This chapter discussed the need for the DoD to shift from a tactical contingency contracting structure to a strategic enterprise structure. A strategic structure can more efficiently use resources, mitigate the risk of supply disruptions, provide a geographic supply base to aid planning, and centralize policy and contract accountability chains. The background gave examples of the strategic importance purchasing plays to both industry and the DoD. Furthermore, the background section revealed an opportunity for the DoD to create more value by applying a strategic approach to contracting aligning contracting strategy with the objectives of the combatant commander. The next section stated the paper's purpose, exploring the application of a strategic approach to contingency contracting to more effectively and efficiently plan and support contingency operations. The significance of the paper's research was then examined followed by the primary and secondary research questions. The final section of this chapter described the organization and methodology of the research.

II. STRATEGIC APPROACH TO PROCUREMENT

The dynamic nature of the business world requires organizations to constantly examine their internal processes, as well as their market position. The literature review illustrates the purchasing function as a business process capable of creating a sustainable competitive position over the opposition. A firm's purchasing function is rapidly evolving into a strategic process integrated into overall corporate strategy. The DoD recognizes the value of a strategic approach for purchasing and is transforming military acquisitions by implementing strategic sourcing initiatives.

This chapter first examines corporate strategy and competitive advantage. Next, the discussion explains how market economics and competitive forces within market structures impact a firm's strategy. The market structure section develops and leads into a study of the supply chain and the concept of supply-chain management. The subsequent section will examine the evolution of purchasing to supply management, a strategic approach to purchasing. This chapter concludes with commercial examples illustrating how a firm's purchasing decisions align with its strategy, followed by a review of the DoD's applications of a strategic approach to military acquisition.

A. STRATEGY AND COMPETITIVE ADVANTAGE

In today's business world, it is important for an organization, and especially its leadership, to fully understand the powerful impact that a well-planned strategy has on creating and sustaining a firm's competitive advantage. In spite of that, many organizations have a misconstrued or ambiguous comprehension of strategy. Firms confuse operational effectiveness with strategy—causing companies to focus on outperforming their competitors instead of differentiating themselves from the competition. Porter, a leading authority on strategy, asserts operational effectiveness and strategy function extremely differently; however, both are critical elements for an organization to achieve superior performance over its competitors (Porter, 1996). This section will examine the differences between operational effectiveness and strategy, as well as the factors a firm needs to consider when developing a strategy—which include trade-offs, value chain, and how a firm's activities must strategically fit together.

1. Operational Effectiveness

According to Porter (1996), operational effectiveness means performing similar activities better than rivals perform them. Operational effectiveness includes improving efficiency, as well as many other aspects that allow a company to better utilize its resources. In recent years, companies have realized this operational agenda, improving production and quality, by implementing industry best practices such as Just-in-time inventory, Lean Six Sigma, Total Quality Management, and Business Process Reengineering. These methods enable a firm to obtain remarkable operational enhancements, but these improvements do not lead to a sustainable profit or competitive advantage for a business. The more benchmarking and outsourcing firms do, often across the same activities, the more generic these activities become. Porter argues the worst mistake a company can make strategically is to compete with rivals on the same dimensions. Any organization, including competitors, can adopt industry best practices. Thus, in the operational agenda, no one firm will have a distinctive or sustainable competitive advantage from the others (Porter, 1996).

2. Strategy and Competitive Advantage

In contrast to operational effectiveness, companies with a strategic agenda attempt to achieve a sustainable competitive advantage by performing the same activities differently or by executing different activities than their competitors (Porter, 1996). Strategic positioning creates a unique and sustainable competitive position over competitors; this is called a competitive advantage. Porter (1985) identifies two types of competitive advantage: cost and differentiation. A business with a cost leadership advantage focuses all activities toward a low-cost offering providing more total value than similar products or services as its competitors but at a lower cost position. A cost advantage strategy analyzes the businesses discrete activities and makes trade-offs between cost and value. An example of such a trade-off is a reduction of cost by two units with a subsequent trade-off to value of only a single unit. A differentiation competitive advantage is when a firm differentiates itself from competitors in a unique way providing something valuable to buyers commanding a price premium. The key to a differentiation advantage is to provide a unique offering adding value above the costs of being unique (Porter, 1985). Procurement has strategic significance in almost every

industry (Porter, 1985) by contributing to the advantage an organization seeks in two ways: 1) work to reduce product input costs without trading-off a greater reduction in overall product value or 2) work to increase product value by more than the trade-off of a cost increase (Ghemwhat & Rivkin, 2006).

How a firm positions itself, either low cost, being different, or a blend of (low cost against some competitors and differentiation against other competitors) is the key element in its competitive strategy. In addition to the cost or differentiation strategy, a focus strategy targets a segment of customers, or on accessing a segment of customers with a different set of activities. The worst mistake a firm can make is to not define a strategy and become stuck in the middle (Porter, 1980).

According to Porter, a firm's strategy is a way of combining the activities of various functional departments, which prevents these departments from operating independently. The success of a strategy depends on this internally consistent set of objectives and policies—which parallel the company's strengths and weaknesses with the external opportunities and threats within a dynamic environment. Strategy is creating a unique and sustainable competitive position which requires trade-offs, effective value-chain execution, and a continued strategic fit between all activities (Porter, 1991). The remainder of this section will examine trade-offs, value chains, strategic fit and their relation to strategy.

a. Trade-offs

Trade-offs enable a company to examine the contradictory agendas of different strategic positions (Porter, 1996). For example, if a company strategically positions itself as a high-cost or premium producer of a good, then the firm cannot target the low-end market segment at the same time. Targeting the low-end market segment will dilute the firm's premium strategic position. Additionally, trade-offs indicate a company's willingness to focus more on a set of new activities and less on its current activities. For example, focusing on a new set of activities may require significant retooling of equipment, production configurations, or different employee behavior (Porter, 1996).

Many organizations may realize that a competitor's successful strategic position is a valuable lucrative venture and, thus, will try to emulate it. Many firms

attempting to imitate a competitor's position will find that trade-offs are needed to maintain the desired strategic position. An organization cannot choose to accomplish both sets of activities without major negative repercussions to its business. Trade-offs limit what firms can offer and protect against what other firms seek to emulate: a strategic position (Porter, 1996). A firm needs to directly focus on the set of activities, called a value chain, which will support its strategy.

b. Value Chain

All organizations are a collection of activities that function to support all facets of its products or services (Porter, 1985). Porter created the value-chain model, represented in Figure 2, identifing how a firm's activities integrate to create value and a competitive advantage (Porter, 1985). As illustrated in Figure 2, a company's profit margin relies on the effective execution of its internal activities. This will cause its customers' willingness to pay for the goods or services to exceed the expenditures of the firm's value chain, thus increasing value and profit. A company's value chain must create more value than its competitors to obtain a competitive advantage. The source of a competitive advantage stems from the differences among competitors' distinct activities, or "value chains" (Porter, 1985). A critical component of competitive advantage, as well as a factor in sustaining the advantage, is to ensure a strategic fit between all the activities (Porter, 1996).

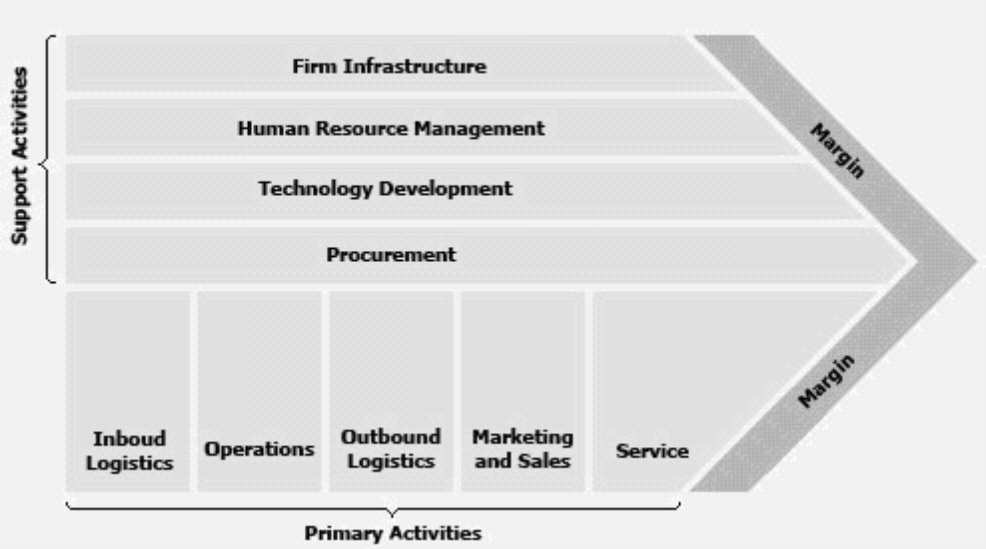

Figure 2. The Value Chain
(From Porter, 1980**)**

c. Strategic Fit

The firm must ensure that all the activities chosen fit strategically together. According to Porter, positioning determines the set of activities a firm will implement and how the activities are interrelated. Operational effectiveness is concentrated on reaching excellence in each activity; strategy is about integrating the activities (Porter, 1996). An organization has to remain supportive and consistent between its value chain and strategy to preserve its competitive advantage. Firms have to remain consistent and cognizant of dynamic external factors. A value chain is comprised of primary activities and support activities that affect a company's overall profit margin. When an organization finds the set of activities that strategically fit together and the system functions well, this will add incredible value to the company—ultimately creating or sustaining a competitive advantage.

When developing a strategy, a firm must consider trade-offs, the value chain, and the synthesis of the firm's strategic activities. In addition, an organization has to effectively manage the value system, which can create and sustain a competitive advantage. The next section discusses competitive forces influencing strategy within market structures.

B. MARKET STRUCTURAL ANALYSIS

Global firms operate in market structures resembling a jungle of competitive forces—including rivals, buyers, suppliers and threats of both substitutes and new entrants (Porter, 1979). This section focuses on market economics and the competitive forces firms face within market structures. Porter creates a framework for crafting strategies by understanding competitive forces pushing toward market equilibrium. Market structure and competitive forces present principles significant to the DoD's strategic operating and purchasing decisions. The DoD can use purchasing to strategically influence market structures.

1. Market Economics

Market economies typically promote overall economic well-being. In 1776, Adam Smith observed the "invisible hand." Households and firms interact in markets, thus achieving outcomes in which prices reflect a goods value to society and a goods cost to society. Collectively, individual decisions, for the most part, maximize the welfare of society as a whole. A competitive market is a market in which many buyers and sellers interact, each having a negligible impact on price. Market price and quantity resides at market equilibrium—where supply equals demand (Mankiw, 2004).

Market equilibrium, within a perfectly competitive market, presents the worst prospects for a firm's long-run profitability. A firm's strategy should identify competitive forces driving toward equilibrium within a market structure. The firm should then seek an industry position to best defend against or influence these forces favorably (Porter, 1979).

2. Market Competitive Forces

There are numerous competitive forces shaping a firm's strategy. Porter's (1979) model presents five competitive forces shaping strategy, as shown in Figure 3: rivalry among firms, threat of new entrants, threat of substitutes, power of consumers, and power of suppliers. Other forces not included in Porter's model are: complements, regulators, media, and investors (Coughlan, 2007). This view of competition depicts competitive forces within a market structure from which to derive strategy. Too often firms and customers, including the government, view competitive forces narrowly by only considering rivalry, the inner most ring of Figure 3 (Porter, 1979). However, Porter

presents four additional forces surrounding rivalry, each attempting to reduce a firm's long-run profitability. The remainder of this section briefly describes the characteristics of these five competitive forces.

a. Rivalry Among Firms

Competition between existing firms provides the most basic element of a competitive landscape. However, price competition often leaves entire industries worse-off in terms of profitability (Porter, 1979).

b. Threat of New Entrants

Firms constantly threaten to enter profitable markets. Ultimately, new entrants bring more capacity and a desire to capture market share. Factors influencing threat of entry include expectations of incumbent retaliation and barriers to entry. Incumbent retaliation is a strategic barrier, such as increasing a marketing campaign or lowering prices to deter entry. Six examples of structural barriers to entry influencing markets are: economies of scale, product differentiation, capital requirements, cost disadvantages, access to distribution channels and government policy (Porter, 1979).

c. Threat of Substitutes

Substitutes are often interchangeable goods used in place of each other (Mankiw, 2004) pressuring industry profitability (Porter, 1980). Ultimately, the threat depends on the surplus value the substitute provides consumers in relation to the primary product (Porter, 1980). Consumer surplus measures the value a consumer captures between the price and willingness to pay for the product (Mankiw, 2004).

d. Power of Consumers

Powerful customers reduce profitability by demanding high quality and low price by pitting producers against each other. Several factors influence buyer power, including purchase volume, product differentiation, switching costs, and importance of product. A concentrated consumer base or a consumer purchasing significant volume can gain leverage over the supplier and threaten profitability (Porter, 1980).

e. Power of Suppliers

Powerful suppliers can squeeze industry profitability by raising prices or reducing quality. Sources of supplier power include: circumstance in which the relative concentration of suppliers is greater than buyers or the buyers are more fragmented than the suppliers, relative importance of customer market, importance of supplier's product, low threat of forward integration, and lack of substitutes (Porter, 1980).

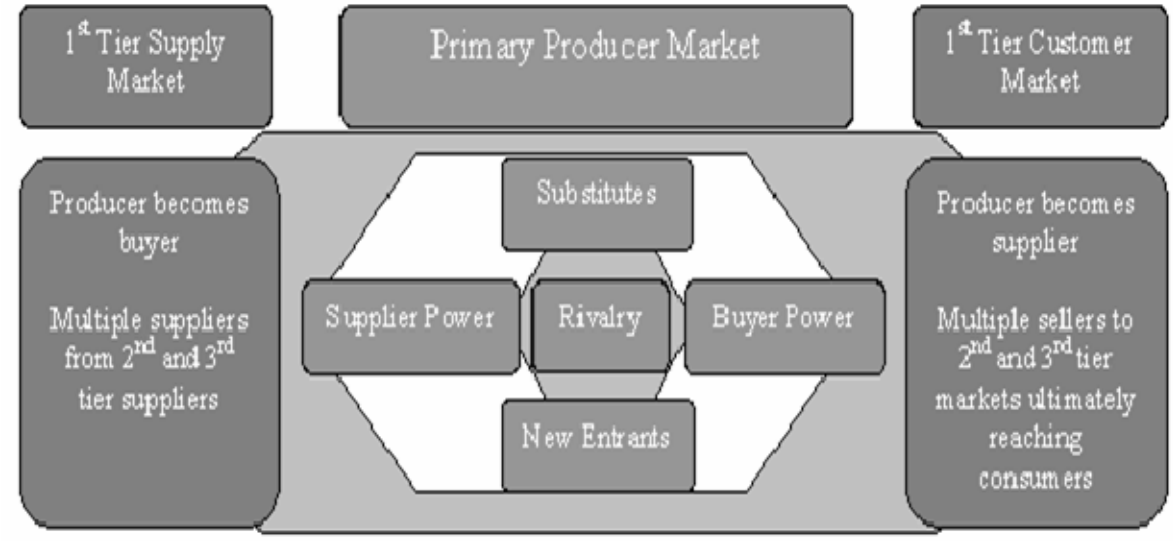

Figure 3. Market Competitive Forces
(After Porter, 1980)

Strategists need to understand these forces to favorably influence company position (Porter, 1979). An ideal position seeks low competitive forces. Such a position will yield high profits that garner the attention of others. The dynamic market structure requires constant monitoring and positioning to continually exploit the five forces of competition. In addition to a five-forces analysis, firms should identify the characteristics of the primary, supply, and customer market: fragmented, emerging, maturing, declining, or global (Porter, 1980).

The outermost ring of Figure 3 presents an extended perspective of market structure, ranging from initial suppliers to end consumers. This view of market structure begins to resemble a supply chain, integrating competitive forces across multiple levels. The forces resemble a string of chain links extending into supplier and customers tiers. Expanding past the primary producer market and first-tier supply and customer market, Figure 4 presents a view of a supply chain.

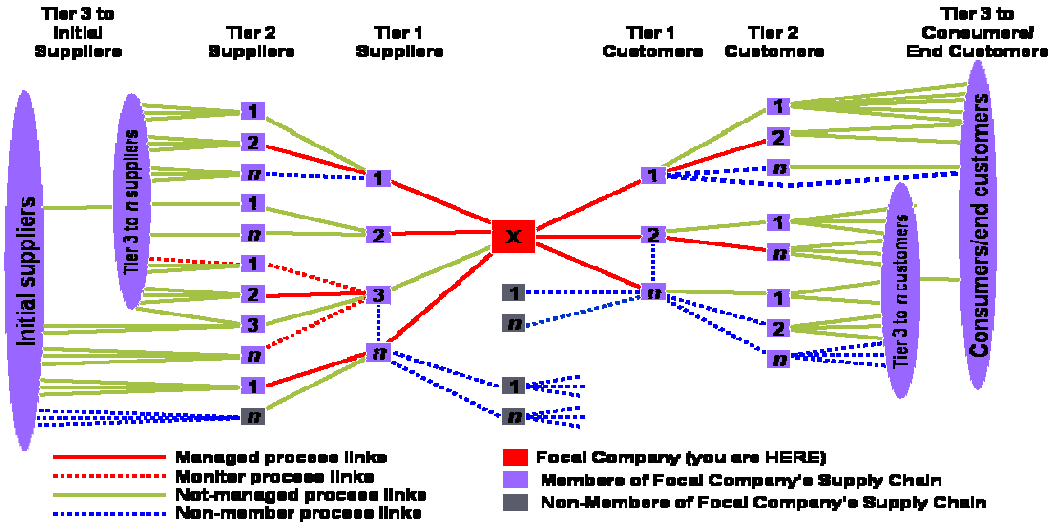

Figure 4. Supply Chain
(From Lambert, Cooper, & Pagh, 1998)

3. Significance to Government

Contrasting the five forces' significance to a firm, government acquisition desires highly competitive markets. Similar to a firm's analysis of only rivalry, government can overemphasize competition between firms. Consider the government as a consumer at tier three within a highly competitive market. The market appears to have several suppliers. Initially, this scenario seems favorable for the government to possess high buyer power. A five-forces structural analysis of the broad market may show a low threat of new entrants and substitutes. In fact, only a few or single initial suppliers at the primary market or first-tier suppliers for a critical component to the end-product may exist. In this market, competition at the second- or third-tier customer market may prove

fruitless because in this example, the power lies in the primary or supply market. Firms possessing this power will capture the most value as measured by price in the market.

The product value to the end-user is set after production by the primary firm. As the product travels through the first tier of customers to consumers, the net value or consumer surplus diminishes because price rises. The DoD is a large buyer at various tiers. Aggregating DoD requirements at a strategic level as a tier-one customer increases value by reducing cost, while end-product value remains the same. The next section will discuss the supply chain in more detail.

C. SUPPLY-CHAIN

Businesses no longer compete exclusively as individual entities; rather, they compete as supply chains, a shift transforming the core of business management (Lambert, Cooper & Pagh, 1998). A supply chain is a network of entities directly involved in the upstream and downstream flows of products, services, finances, and/or information from a source to a customer (Mentzer et al., 2001). In other words, supply chains are networks of activities involving production of goods or services for the customer. A supply chain comprises activities that affect a company's performance—similar to Porter's value chain. According to Lambert, Cooper, and Pagh (1998), activities are business processes that create specific value to the end-customer. Figure 5 portrays a supply-chain network, the critical integration of information and product flows, plus the strategic supply-chain business processes involved in that network, which include purchasing, logistics, marketing and sales, finance, research and development, and production (Lambert et al., 1998). The remainder of this section will discuss types of supply chains and supply-chain management.

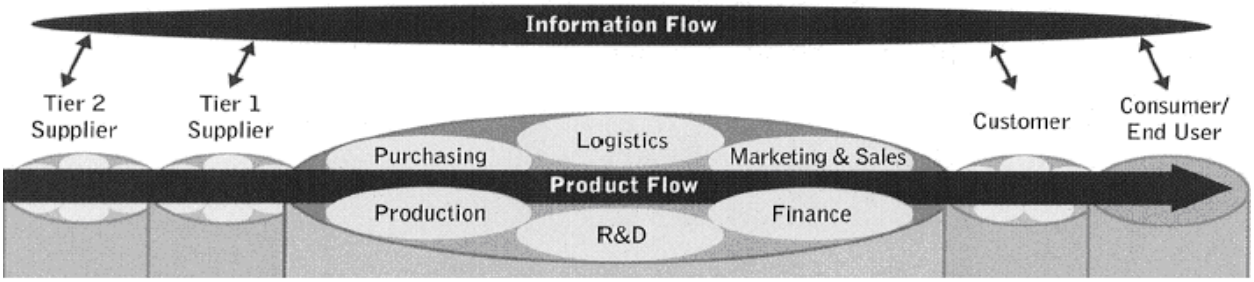

Figure 5. Supply-chain Network
(From Lambert et al., 1998)

1. Types of Supply-Chain

There are three basic classifications of supply chains which differ in complexity: 1) Direct or Basic Supply Chain, 2) Extended Supply Chain, and 3) Ultimate Supply Chain. Figure 6 illustrates the different types of supply chains, dictating differing amounts of management due to the complexity of each. As the degree of complexity in a supply chain increases, the need for management of the supply chain will escalate (Menzter et al., 2001).

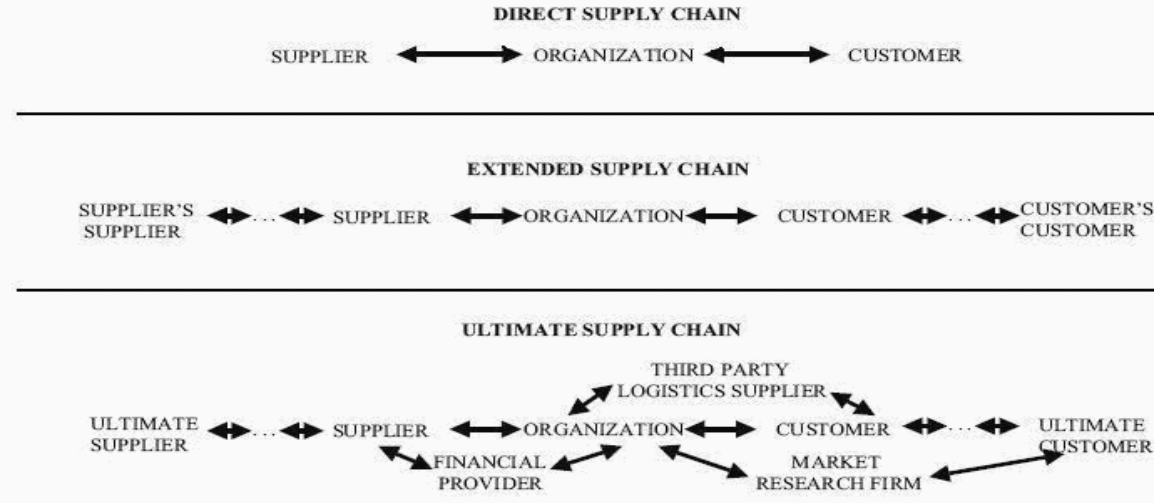

Figure 6. Supply Chain Types
(From Menzter et al., 2001)

a. Direct Supply-Chain

A direct supply chain is comprised of a company, supplier and a customer. The company is dealing with the immediate supplier and customer who are "involved in the upstream and downstream flows of products, services, finances, and information" (Menzter et al., 2001).

b. Extended Supply-Chain

The extended supply chain includes the same entities and relationships as a direct supply chain; however, an extended supply chain adjoins the second-tier supplier as well as the immediate or first-tier supplier, and has two tiers of customers. A supply

chain that includes all the organizations "involved in the upstream and downstream flows of products, services, finances, and information" is called an ultimate supply chain (Menzter et al., 2001).

c. Ultimate Supply-Chain

In an ultimate supply chain, a company may choose to outsource a supply-chain function(s) to a third-party logistics (3PL) provider; a 3PL provider specializes in performing supply-chain activities between two companies, i.e., between a company and its supplier (Mentzer et al., 2001).

The success of a single firm heavily relies on management's ability to integrate the company's network of relationships to seek innovation, enhance performance, improve quality, and typically lower operating and overhead cost (Lambert, 2004). The remainder of the section will look at supply-chain management leading to the role of purchasing as supply management, linking external suppliers to the internal supply chain.

2. Supply-chain Orientation Versus Supply-chain Management

At the strategic level, senior leadership in an organization must recognize the importance of supply-chain management. However, a firm's recognition that the tactical activities involved in controlling movements in the supply chain have strategic implications is not supply-chain management—rather it is called supply-chain orientation (Mentzer et al., 2001). Supply-chain management is the actual implementation of actions, which are taken in response to the recognition of the strategic implications among the supply chain (Mentzer et al., 2001).

3. Supply-chain Management

A vital concern for an organization is supply-chain management, which is an integrated management approach of the total supply-chain flow from supplier to the end-user. Supply-chain management's objective is to maximize competitiveness and profitability for a firm and the entire supply-chain network to include the end-customer (Lambert et al., 1998). Many experts have different definitions of supply-chain management; however, all agree supply-chain management can have a powerful impact on an organization by increasing potential cost savings, enhancing customer satisfaction, and improving the competitive advantage of all organizations in the supply chain

(Mentzer et al., 2001). The implementation of supply-chain management involves identifying the members of the supply chain, which member is and processes are crucial to integrate, and the level of integration as it applies to each process link (Lambert et al., 1998).

As firms make strategic decisions not to perform activities others perform more efficiently, the link between suppliers and the internal supply chain becomes more critical. Purchasing typically interacts up-channel with suppliers and internally with requiring business units (Cooper & Ellram, 1993). By focusing on the buyer-supplier relationship, this view of purchasing is becoming supply management, not to be confused with supply-chain management, which emphasizes all aspects of delivering the products (Chen & Paulraj, 2004). A strategic approach to procurement organizes procurement centrally for enterprise-wide effects to feed the internal supply chain by better understanding market structures, leveraging purchases, and identifying key suppliers. The next section discusses the transition from purchasing to supply management.

D. PURCHASING AS SUPPLY MANAGEMENT

The administrative view of purchasing in the 1970s began to shift in the 1980s from a tactical to strategic business unit (Carter & Narasimhan, 1996). A study by Carter and Narasimhan in 1996 suggests purchasing is just as important as pricing, positioning, and product design decisions to a firm's success. Additionally, the research suggests declines in business units' performance as purchasing decisions become decentralized. Conversely, centralized decision systems enable strategic purchasing decisions such as partnering, strategic alliances, commodity planning, and integrating procurement strategy with corporate strategy (Carter & Narasimhan, 1996).

According to Burt, Dobler, and Starling (2003), supply management integrates and optimizes the entire supply chain. Supply Management is primarily concerned with proactively improving processes with the long-term goal of upgrading the competitive capability of the firm and the firm's supply chain. All members of a supply chain can reduce cost, improve competitiveness, and increase profitability—if the entire supply chain can operate collaboratively and with synchronization (Burt, Dobler & Starling, 2003).

Aspects of a strategic approach to procurement include the view of purchasing as supply management and also initiatives such as: strategic sourcing, sourcing strategies, and commodity strategies. Strategic sourcing understands markets inside and out to increase suppliers' value (Burt et al., 2003). Sourcing strategies classify purchases by assessing supply position to develop an appropriate strategy that mitigates supply weaknesses and efficiently uses a company's buying leverage (Kraljic, 1983). Kraljic (1983) presents a portfolio approach to classify goods and services based on their strategic importance to the firm and market complexity; this approach is utilized when developing sourcing strategies which require varying investments of time and resources. From the broad portfolio approach, the procurement agency may tailor strategies for individual commodities or commodity strategies. The remainder of this section will discuss strategic sourcing, sourcing strategies, and commodity strategies in more detail.

1. Strategic Sourcing

Strategic sourcing involves a firm's decision to take a strategic approach to the selection of suppliers (Rendon, 2005). Strategic sourcing is one aspect of a strategic approach to procurement which identifies beneficial supplier relationships and core competencies within markets and aligns them with the firm's strategy. As a firm shifts to capitalize on suppliers who produce more efficiently, procurement strategy becomes more relevant to the firm's competitive position. Strategic sourcing provides a means to integrate procurement strategy with the firm's overall corporate strategy (Rendon, 2005).

Strategic sourcing inverts the traditional tactical buying structure. Figure 7 illustrates the personnel emphasis within a tactical buying and strategic sourcing model. A tactical buying organization employs a majority of personnel at lower, decentralized levels. This fragments purchases and focuses on short-term, one-time buys—not long-term, mutually beneficial relationships. Very few employees work at strategic levels to leverage and integrate supply chains to benefit the organization.

Aggregating the firm's requirements at the strategic level inverts the tactical buying structure toward strategic sourcing. A preponderance of personnel focus is on market knowledge and supply-base management, while relatively few execute orders. This aspect of a strategic approach optimizes the number of suppliers providing specific goods or services. By rationalizing the supply base, fewer personnel focus on transaction-

by-transaction orders, and more focus on developing and integrating the corporate supply base and supply chain (Moore, Baldwin, Camm & Cook, 2002).

Figure 7. Strategic Model
(From Moore et al., 2002)

Increasing personnel focus toward market knowledge and supply-base management from order processing allows organizations to better understand and manage the market structures in which purchases are made. The purchasing organization can optimize the number of suppliers by identifying suppliers with beneficial core competencies to rationalize the organization's supply-base relative to the firm's strategy. The next section, sourcing strategies, presents a portfolio approach to better understand the organizational importance of products and the product market structures when developing strategies.

2. Sourcing Strategies

As mentioned previously, to minimize supply vulnerabilities and maximize potential buying power, Kraljic presents a portfolio model to develop sourcing strategies. The portfolio requires classifying supplies and services as either high or low dependent on two factors: 1) internal strategic importance of the product and 2) external complexity of the product supply market. Figure 8 portrays the portfolio and the resulting four groupings of strategies to source supplies and services: (I) purchasing management, (II) materials management, (III) sourcing management, and (IV) supply management. By

classifying supplies and services, the procurement organization is able to develop sourcing strategies to both exploit purchasing power and to reduce risk to an acceptable level (Kraljic, 1983).

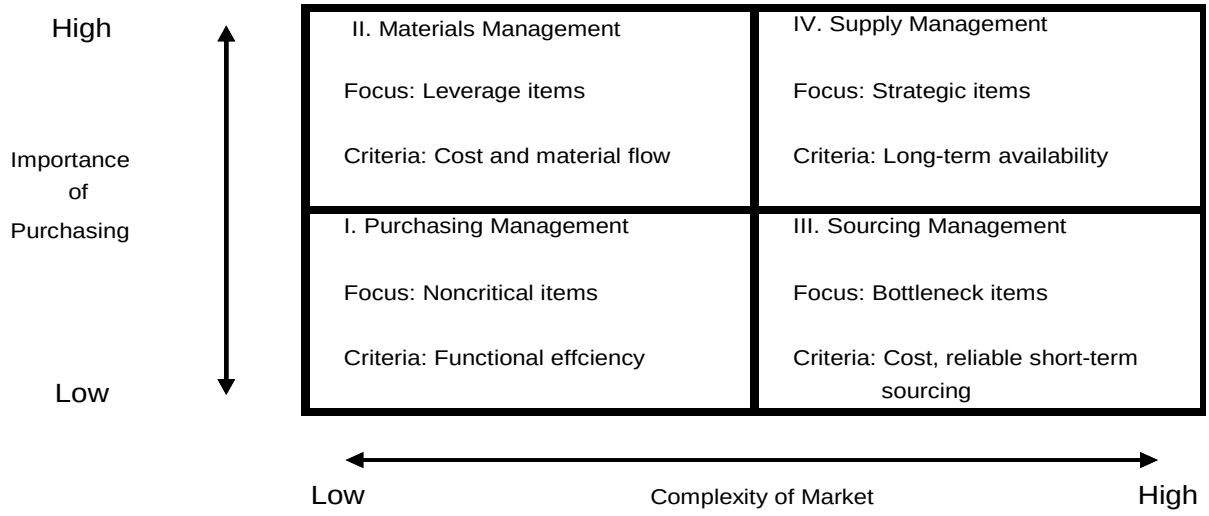

Figure 8. Kraljic's Portfolio Model
(After Kraljic, 1983)

a. Importance of Purchasing

Classification of low or high importance depends on the value of the product and percentage of total cost. Items with a high percentage of total cost may present opportunities to impact overall profitability if their purchases are consolidated (Kraljic, 1983).

b. Complexity of Market

Analysis of market structure provides insight to supply scarcity, technology improvements, material substitution, entry barriers, logistics complexity, and monopoly or oligopoly conditions. A complex market presents conditions of high supplier power and possibility of supply disruption (Kraljic, 1983).

c. Purchasing Management—Quadrant I

Low purchasing importance/low profit impact and low market complexity/low supply risk present a purchasing management strategy for noncritical items. Noncritical items require low-level strategies to optimize inventory and standardize products (Kraljic, 1983). The key strategy is to streamline the process and

reduce transaction costs through blanket ordering agreements or purchase cards to increase efficiency (Cavinato, Flynn, & Kauffman, 2006).

d. Materials Management—Quadrant II

High importance of purchasing/high profit impact and low market complexity/low supply risk present a materials-management strategy for leverage items. Procurement strategies for leverage items should capitalize on the company's purchasing power to negotiate desirable contract terms and conditions with suppliers (Rendon, 2005). The key strategy is to maximize the products profit contributions by reducing costs of these items (Cavinuto et al., 2006)

e. Sourcing Management—Quadrant III

Low importance of purchasing/low profit impact and high market complexity/high supply risk present a sourcing-management strategy for bottleneck items. Bottleneck items are not particularly valuable to the firm, however market complexity presents a risk of shortage. Bottleneck items require a strategy focusing on product delivery, volume surplus, and backup plans (Kraljic, 1983).

f. Supply Management—Quadrant IV

High importance of purchasing/high profit impact and high market complexity/high supply risk present a supply-management strategy for strategic items. Strategic items require demand forecasting, in-depth market research, contingency planning, and development of long-term supply relationships (Kraljic, 1983). Additionally, these long-term relationships may provide opportunities for beneficial business integration. Tactics for these strategic items may include certification processes to control supplier performance and to monitor continuous improvements (Rendon, 2005).

Kraljic's strategic approach to sourcing provides a practical tool for determining the type of procurement strategy for specific products and/or services. However, market structures are dynamic, and the portfolio approach requires constant monitoring (Rendon, 2005). Market analysis and strategic positioning are critical after initial classification. Market analysis systematically reviews the supply market, assessing issues such as availability of materials in terms of quality and quantity and the relative strength of existing vendors. Strategic positioning develops counterstrategies to mitigate

supplier power and other forces within a product market structure (Kraljic, 1983). After classifying materials into broad sourcing strategy groupings, commodity strategies can optimize the supply base for a specific category of supplies/service (Rendon, 2005). The next section discusses commodity strategies as aspects of sourcing strategies for specific products.

3. Commodity Strategy

Commodity sourcing strategies entail developing a specific sourcing strategy for a category or group of supplies and services (Rendon, 2005). Tim Laseter, Vice President of Operations Management Group at Booz-Allen Hamilton, Inc., identifies seven elements of sourcing strategy in his balanced sourcing model: spend analysis, industry analysis, cost and performance analysis, supply-base analysis, business-process reintegration, quantification metrics, and implementation strategy (Laseter, 1998). The remainder of this section will discuss the key aspects of the balanced sourcing model. Note that the first three elements: spend analysis, industry analysis and cost and performance analysis, document facts on which to base commodity decisions. The second three elements: supply-base analysis, business-process reintegration, and quantification metrics represent the core of sourcing strategy—decisions the firm will make. The final element, implementation strategy, translates the commodity strategy into opportunity (Laseter, 1998).

a. Spend Analysis

The spend analysis analyzes all the goods and services an organization purchases and plans to purchase in the future across all organizational divisions (Rendon, 2005). This provides a multidimensional view of the organization's expenditures: by business unit or product lines, by buying location, by supplier, and by sub-commodity. Additionally, proper spend analysis should address total acquisition cost, not just purchase price (Laseter, 1998). According to Fluor's CEO, the spend analysis allow firms to identify commodities with a high potential savings (Fluor Corporation, 2004).

b. Industry Analysis

Industry analysis broadens the commodity team's perspective of the supply chain (Laseter, 1998). As described earlier, market structures are complex supply chains. Michael Porter's five forces is an effective tool with which to map the supply

industry. Key aspects to the map are product flow from key supply industries to major customer industries and the roles different companies play, such as assembler, manufacturer, and distributor (Laseter, 1998). In addition to spend analysis, Fluor uses industry analysis to better understand supply markets and suppliers, which it then integrates into business processes (Fluor Corporation, 2004).

c. Cost and Performance Analysis

Procurement must build an understanding of cost. Cost drivers and performance metrics such as quality, technology, timeliness, and flexibility are important inputs. One approach for understanding cost is mapping the manufacturing process and documenting the quality, technology, timeliness, and flexibility options available (Laseter, 1998).

d. Supply-base Analysis

Supply-base analysis segments purchases across a set of differentiated suppliers. This phase allows procurement to determine the types of suppliers and the roles suppliers will play within the firm's supply-management system (Rendon, 2005). Traditional approaches include segmenting purchases by sub-commodity or consuming business units. Another approach is to classify purchases by product lifecycle stage. Early lifecycle stages may provide future savings through increasing volume or supplier learning effects (Laseter, 1998).

e. Business Process Reintegration

Suppliers present opportunities for integration of business processes. This brings supply chains closer together to eliminate waste (Bernstein, 2006a) and to provide opportunities to eliminate low-value activities (Laseter, 1998).

f. Quantification Metrics

Savings quantification links commodity strategies to measurable savings. Metrics depend largely on the commodity strategy. Widely available and undifferentiated commodity purchases may yield high cost savings; cooperative relationships may improve quality, and a balance of both practices may benefit both areas for certain commodities within certain industries. Finding the right metrics is important to convey the resulting commodity strategy to senior organizational leadership (Rendon, 2005).

g. Implementation Strategy

Implementing the plan is the final step of the sourcing strategy. This requires translating the plan into a set of tasks that will result in the saving and/or quality targets (Rendon, 2005). An implementation plan should define the activities, resources, and milestones to achieve the strategic objectives (Laseter, 1998).

A commodity strategy at tactical levels is simply market research performed by several buying organizations. The strategic buying power never materializes, conceding power to the market. By aggregating requirements, the buyer leverages purchases to realize buyer power. Sourcing strategies enable better and more informed commodity decisions for enterprise-wide effects. Strategic sourcing commits the firm to identify and integrate beneficial suppliers to the internal supply chain. These aspects of a strategic approach begin with the firm's decision to view purchasing strategically. The next section discusses a commercial shift to approach procurement strategically, starting from a company leadership perspective.

E. COMMERCIAL APPLICATION

Over time, firms' strategies change to sustain or increase competitive advantage. Although strategy considers what a firm does do, it also plays an important role in deciding what firms do not do (Coughlan, 2007). In order to influence competitive advantage, firms are identifying competencies to remain at the core of business activities and non-core activities to source from more efficient suppliers. Such a strategic view of business activities increases the importance of taking a strategic approach to procurement as a source of competitive advantage to influence product value or quality and reduce cost.

IBM's now-retired Chief Procurement Officer and Vice President, R. Gene Richter, noted the craze of corporate America in the 1990's as "outsource everything and focus on your core competencies". He continues to emphasize a current trend of leveraging and managing outsourced activities of new partners—suppliers of products, components, and services. Facing the prospect that each day firms lose billions of dollars to inefficiencies in the supply chain increases the focus and need to emphasize procurement as a core competency (Nelson, Moody & Stegner, 2001).

A firm's total spend on goods and services as a function of revenue increases as the firm's strategy dictates outsourcing to create an advantage. A strategic approach to procurement plays a key role in realizing the advantage the firm's strategy seeks. Such a strategic approach often resides at the core of successful businesses. A strategic approach begins with a corporate decision to centralize procurement across business activities, which provides a focal organization—planning and executing procurement in accordance with the firm's strategy. The focal procurement organization, strategic sourcing of key suppliers, sourcing strategies which mitigate supply risk, and the creation of commodity strategies to capture the firm's buying power each represent an enterprise-wide or strategic approach. The remaining portion of this section focuses on commercial application of procurement strategy.

1. IBM

IBM's strategy in the mid-1990s transformed purchasing from a tactical focus to a strategic focus (Rendon, 2005). Up to the 1990s, IBM produced many of its end-product components. IBM was a highly vertical organization, closely guarding information from suppliers on how its parts fit within IBM's overall business strategies. Due to the need for secrecy, this lack of supply-chain integration was typical within the computer industry during the 1970s. By the mid-1990s, however, several of IBM's competitors began reducing costs by outsourcing and integrating internal capabilities with those of their suppliers. Old ways of doing business were preventing IBM from leveraging purchases, eliminating process waste, and capitalizing on innovative thinking (Moore et al., 2002).

IBM's strategic approach reshaped the scattered collection of purchasing groups into a centralized structure (Moore et al., 2002). Centralizing its purchasing function led to the creation of 17 commodity councils to leverage corporate buying power. These commodity councils allowed IBM to reduce costs and reduce suppliers. Combining requirements of all IBM's divisions and long-term negotiating contracts with suppliers yielded lower prices. Commodity councils also enabled IBM to reduce production suppliers from 4,900 in 1993 to 50 suppliers—representing 85% of IBM's $17.1 billion production spend in 1999 (Rendon, 2005).

Strategic sourcing was just one aspect of a larger strategic approach by IBM. Top leaders' vision and commitment to strategic intent, strategic thinking, and complementary

actions brought the company to a new level (Moore et al., 2002). The IBM example illustrates a few key points. In the mid-1990s, the computer industry and market structure were changing. IBM leadership recognized the need to change strategically, which is not an easy task. The solution was a strategic approach to the way procurement organized, planned, and leveraged purchases across the enterprise; it integrated key suppliers within the internal supply chain.

2. Dell Computer

As a very different example, Dell's business model integrates five key business strategies: rapid time to volume, products built-to-order, elimination of reseller markups, superior service and support, and low inventory and markup (Kapuscinski, Zhang, Carbonneau, Moore & Reeves, 2004). The fit of these activities enable a competitive advantage within a highly competitive computer industry—both in terms of rivalry between existing manufactures and suppliers such as Microsoft and Intel. The fit of purchasing plays a key role within these activities and Dell's strategy.

Around 1993, Dell faced a fiscal year net income loss of $76 million, fifty-five days of inventory, and $154 million deficit in cash from operations. Dell promised to ship computers five days after orders and faced a forty-five day average lead-time for purchasing parts. Revamping the supply chain became a core element to Dell's strategic solution. Dell's focus became continuity of supply and revamping procurement to manage purchasing and sourcing. Dell implemented a three-tier structure to manage the supply picture. The first, or lowest tier, focuses on commodities on a daily tactical level. The second level, execution, plans component sourcing and replenishment. Four times the amount of personnel work on this level than on the previous level. At the top tier, six times the amount of personnel at the previous level deal with top suppliers (Shah, 2001). Dell understands the impact of procurement's role to increase competitive advantage as a function of value to cost. In a 1999 conference call, then-Chief Financial Officer Tom Meredith put the importance of expanding beyond the plant floor into the preceding tiers of the supply chain into perspective. "Customers see no advantage in a manufacturer lowering inventory to six days if 90 days are still in the supply line" (Kapuscinski et al., 2004).

Dell shares ordering information with suppliers once per month to help them make good ordering decisions (Kapuscinski et al., 2004). Information becomes a key enabler to managing the supply chain. A slinky effect of information within the supply chain between end-user purchases, the producer, and suppliers threatens to create supply surpluses and shortages. This is due to lack of integration or communication of supply chains. Dell's model places end-users directly in contact with Dell—eliminating the customer tiers of the supply chain. However, there is a benefit to Dell and other large buyers to placing planned strategic purchases. For instance, the Air Force's Information Technology Commodity Council (ITCC) aggregates otherwise tactical Air Force purchases into planned buys. This benefits Dell's supply projections and supplier leverage and creates savings for the Air Force. This paper expounds on ITCC in the next section, business transformation.

3. Deere & Company

Deere & Co.'s strategic sourcing initiatives won the company *Purchasing Magazine'*s 2001 Medal of Professional Excellence. The award demonstrates a four-year turnaround, beginning in 1997, by the firm's decision to bring the best of modern global supply practice to Deere & Co. At the time, Deere bought from over 14,000 active suppliers—stemming from a massive move to outsourcing in the 1980's. Each business unit made its own decisions, creating a fragmented supply base. A year later, purchased goods and services represented 70% of manufactured cost of products. Implementing strategic sourcing became the number-one goal at Deere (Smock, 2006).

Supplier development and supply-base optimization became key strategies. Deere's strategic sourcing approach classified materials into four categories: unique products, critical products, generics and commodities. In 1999, Deere's annual spend was $7.1 billion. Divisional managers retained local buying authority for site-specific major components—representing $1.9 billion. Deere divided the remaining spend across enterprise divisional teams, enterprise supply-management teams, an indirect strategic sourcing team, and a logistics buying team (Smock, 2006).

The John Deere example illustrates the success of a strategic approach by organizing procurement to have enterprise-wide effects through integration with corporate strategy—first by segmenting spend to identify categorically what the firm is

purchasing. Next, Deere identified areas to leverage purchases for cost savings and opportunities for developing relationships with suppliers to increase quality. One example is Deere's $1.4 million annual glove spend—yielding over 424 different types of gloves at various prices. The sourcing team set goals to increase safety and quality, price consistency, joint buys, and supplier involvement. Deere saved $490,000, or 35% (Smock, 2006). Deere's strategic approach incorporated the importance of segmenting to save and increase quality but also kept local needs under local control.

4. Fluor Corporation

Fluor uses strategic procurement to bring greater value to clients and improve competitive position. Fluor is one of the largest Engineering, Procurement, and Construction (EPC) firms in the world, operating in twenty-five countries across six continents. Procurement accounts for two-thirds to three-fourths of the firm's project spend, dictating the need for procurement as a core competency. Fluor describes a decentralized procurement approach as "1,000 faces to the supply base." Global sourcing and supply represents Fluor's philosophy to integrate strategic and tactical functions across projects, geographies, industries, and business units. Fluor's current model adopts research from the Construction Industry Institute's study—identifying significant cost savings by integrating procurement during initial engineering efforts. The resulting model is Procurement, Engineering, procurement and Construction (PEpC) (Fluor Corporation, 2004).

Prior to PEpC, the traditional EPC process integrated procurement of critical materials and equipment following a project's engineering work. Within PEpC, "Big P" Procurement focuses on strategic supplier involvement, preceding engineering work. Fluor finds moving strategic purchasing ("Big P") ahead of engineering, and leaving nonstrategic purchasing ("small p") after engineering, the company and clients can save between 4% and 10% while achieving shorter lead times (Atkinson, 2007).

Fluor has four key beliefs critical to achieving its goals and focus on aggressive growth: strategic sourcing, enterprise spend management, supplier diversity, and supplier integration (Fluor Corporation, 2004).

- *Strategic sourcing*. Fluor selects and manages relationships with proven suppliers that serve businesses best. This drives price and nonprice benefits toward successful and profitable projects.
- *Enterprise-spend management*. Fluor emphasizes understanding the supply markets. Enterprise Spend Management Councils identify information to capitalize on high potential savings.
- *Supplier diversity*. Fluor reaches out to suppliers, ensuring the supplier's information is accessible throughout Fluor's organizations.
- *Supplier integration*. Fluor seeks to integrate supplier's core competencies into projects to benefit engineering. This reduces engineering effort, shortens cycle-time and lowers risk.

Fluor's global sourcing and supply organization manages a $10 billion annual spend. Over the past five years, Fluor's supply base has been reduced from 30,000 suppliers to an approved-bidders list of 2,000. This includes 150 strategic supplier agreements. Jim Scotti, Chief Procurement Officer at Fluor, understands the importance of suppliers. One element of the firm's focus is to eliminate the waste between Fluor and suppliers by not only concentrating on Flour's supply chain, but also on the supply chain of the supplier (Bernstein, 2006). Global sourcing and supply has a significant influence on Fluor's success in Iraq.

As of 2004, over 200 metric tons of air freight and 10,000 cubic tons of sea freight had been shipped to Iraq to support $600 million of Fluor contracts in Iraq (Fluor Corporation, 2004). Supplier relationships within Iraq are also very important. While Iraq has concrete production capacity, the quality is very poor. Often, contractors must place their own quality-control personnel within the plants or open their own plants. Fluor's Vice President believes the key is to develop relationships to identify subcontractors with the skill mix to accomplish jobs (Gelhausen, 2004).

5. Analysis of Industry

Firms' market structure and strategies differ. Likewise, their strategic approaches to procurement differ; however, implementation is driven from the top. This starts with

the leaders' commitment to integrate procurement and corporate strategy. The key is to find an approach consistent with the external structure and internal strategy flexible to respond in a dynamic environment.

A centralized core with command and control (C2) over the firm's purchasing decisions can engage in purchasing decisions consistent with the corporate strategy. Strategic sourcing initiatives allow integration of external sources and rationalization of the current supply base relative to the firm's strategy. The development of sourcing strategies to classify requirements views the supply chain as a dynamic system to mitigate risk. Further, commodity strategies can realize the potential buying power of the firm. In some cases, a strategic approach will bring firms closer to operational effectiveness, as was the case with the computer industry in the late 1990's. IBM had to make a change, as the market structure dictated, to remain competitive. However, strategic decisions firms make require alignment by purchasing to capture competitive advantage—such as decisions to outsource or to create new product lines. These strategic decisions must fit with procurement strategy, thus requiring a strategic approach to procurement.

F. DEPARTMENT OF DEFENSE APPLICATIONS

The DoD is transforming to meet the current and future security challenges facing the United States. These complex challenges require an agile joint force and flexible and responsive financial structure across the full spectrum of military operations in both peace and war (Defense Business Transformation Agency, 2006b). In May 2005, the Office of Management and Budget (OMB) stressed the importance of agencies initiating strategic sourcing to maximize the value of each $300 billion dollars the federal government spends on goods and services each year (OMB, 2005). In October 2005, the DoD established the Defense Business Transformation Agency (BTA) to execute enterprise-level business transformation to meet strategic objectives (Defense Business Transformation Agency, 2006a).

In one sense, a strategic approach to procurement is an old approach to a new problem for the DoD. For instance, large DoD system program offices operate under a project lifecycle approach. This approach is the Defense Acquisition Management Framework, which views programs from concept refinement through disposal. The

program office views the entire program from start to finish as is the case in, for example, the F-22 system program office. Further, similar program offices cluster within specialized centers, such as the Aeronautical Systems Center. The Aeronautical Systems Center manages 420 aircraft programs within its portfolio (Aeronautical Systems Center, 2006).

As the DoD adapts to current challenges, strategic decisions are made affecting what the DoD will source externally rather than provide internally. This provides the opportunity for successful acquisition approaches to new challenges facing the DoD to improve cost and outcomes such as service and commodity acquisition. The remainder of this section will discuss a total lifecycle approach, integrated services approach, and commodity approach by the DoD to procure goods and services.

1. Total Lifecycle Systems Management Approach to Major Systems

Major defense system acquisition stems from a series of top-down analyses of strategic-level guidance, including the National Security Strategy, National Military Strategy, *Joint Vision 2020*, and the *Quadrennial Defense Review*. The framework for these analyses is the Joint Capabilities Integration and Development System (JCIDS). JCIDS ultimately analyzes existing capabilities and future weapon systems needs associated with capability gaps and the resulting risks. The collective analysis produces an Initial Capabilities Document (ICD) and entry into concept refinement, the initial stage of the Defense Acquisition Management Framework (Defense Acquisition University, 2006). According to *DoD Directive 5000.1*, the Defense Acquisition Management System is the process by which the DoD provides effective, affordable, and timely systems to users (United States Department of Defense, 2003a). Pre-acquisition presents the first meaningful opportunity to influence weapon system supportability and affordability by balancing threat scenarios, technology opportunities, and operational requirements (Defense Acquisition University, 2006).

The program manager (PM) has the ultimate program responsibility as the system lifecycle manager responsible for effective and timely acquisition and sustainment. Total lifecycle systems management (TLCSM) is the implementation, management, and oversight, by the designated PM, of all activities associated with the acquisition, development, fielding, sustainment, and disposal of a DoD weapon or material system

across its lifecycle (Defense Acquisition University, 2006). *DoD Directive 5000.1* states that PMs should begin planning for operations and support and the estimation of total ownership costs as early as possible. Additionally, the PM should consider supportability throughout the program lifecycle (United States Department of Defense, 2003a). Figure 9 illustrates a total lifecycle systems-management view of the Defense Acquisition Management Framework, a strategic approach to system acquisition.

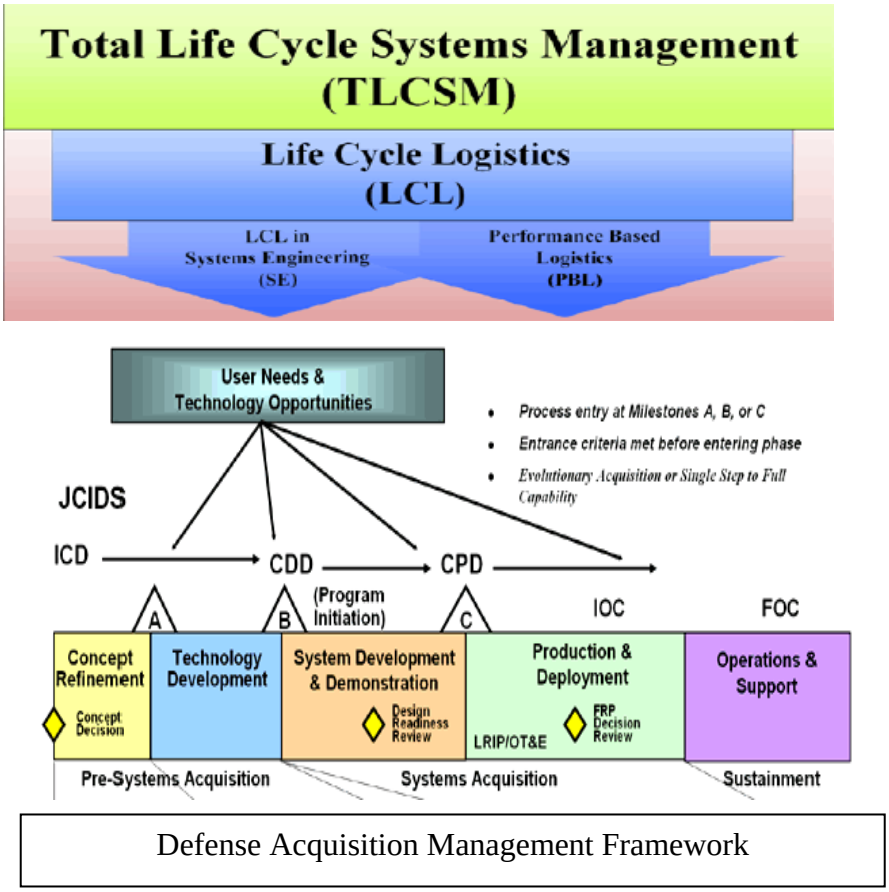

Figure 9. TLCSM View of the Defense Acquisition Management Framework
(After Defense Acquisition University, 2006)

The Defense Acquisition Management Framework under the TLCSM umbrella encompasses the PM's duty to the lifecycle of a defense system. Under this approach, the PM is responsible for program cost, schedule, and performance reporting to the milestone decision authority (MDA). The MDA has full program responsibility and authorizes entry

through milestones, triangles above framework: A, B, C, into subsequent program stages (United States Department of Defense, 2003a). The next section will discuss an old approach to a new application, service contracts.

2. Program Approach to Service Contracts

The Government Accountability Office (GAO) (2007) found over the past decade that the DoD is increasingly relying on service contractors to provide a wide range of services. Obligations on service contracts have risen 72% from 1996 to 2005, from $82.3 billion to $141.2 billion respectively. Services include management, maintenance, information technology, and security. An example is the US Army's award of a $733 million security contract, supporting 57 installations, resulting from personnel shortages stemming from the Global War on Terrorism (GWOT). The DoD's collective service acquisition portfolio represents 20% of total spend and now exceeds the amount the Department spends on supplies and equipment, including major weapon systems (United States General Accountability Office, 2007).

The DoD traditionally views service acquisition under a different framework from defense system acquisition, partly due to lower risk. The GAO views DoD service acquisition as fragmented and uncoordinated, as the responsibility is spread across individual service commands, program offices, and field base-support offices. This creates little visibility or control at the service and defense department level. The GAO identifies three key success factors: obtaining the right service, at the right price, in the right manner. Enabling these key factors at the strategic level is leadership, processes, and information necessary to mitigate risks, leverage buying power, and managing outcomes. This means the organization must understand the volume, sources, portfolios, and trends of the services; it must then ensure requirements are valid, purchased properly, and performed with minimum risk and maximum efficiency (United States General Accountability Office, 2007).

The *2002 National Defense Authorization Act* requires establishment of a management structure for the acquisition of services. *DoD Instruction 5000.2*, *Operation of the Defense Acquisition System*, addresses the acquisition of services in enclosure eight, stating all service acquisitions shall use a strategic approach that includes

developing a picture of the DoD's spend on services, an enterprise-wide approach to procuring services, and developing new ways of doing business (United States Department of Defense, 2003b).

An example of a strategic approach to services is Air Combat Command's Acquisition Management Integration Center (AMIC). AMIC is a service program office. Program managers work side-by-side with contracting officers, along with other functional expertise: logistics, civil engineers, communications, and quality assurance. AMIC's approach applies a large, defense program-management style to the acquisition of services (AMIC, 2007).

3. Commodity Council Approach

Defense-wide Strategic Sourcing (DWSS) analyzes spend to more efficiently and effectively acquire services and commodities (Defense Business Transformation Agency, 2006a). The theme for the acquisition of commodities is similar to services: leveraging buying power to obtain goods at better terms and conditions over the product lifecycle (United States Department of Defense, 2005). Figure 10 illustrates the systematic approach DWSS uses to incorporate enterprise spend analysis, supplier relations development, demand management, and stakeholder requirements into the sourcing process (United States Department of Defense, 2005).

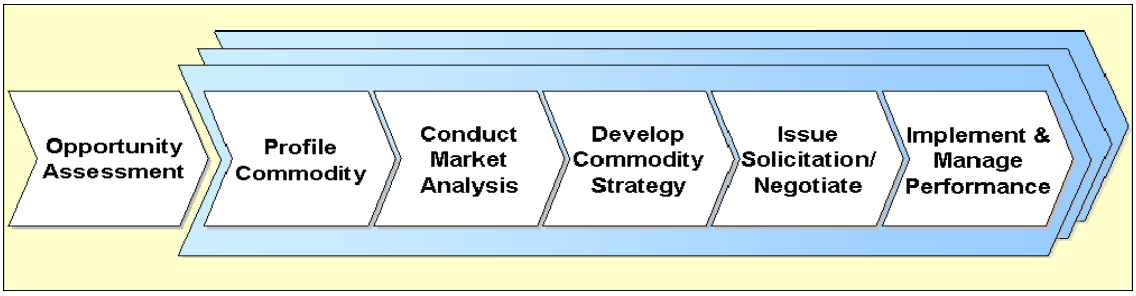

Figure 10. Defense-wide Strategic Sourcing Overview
(From OSD, 2005)

Figure 11 illustrates the Strategic Sourcing Directors Board (SSDB) as the strategic apex of DWSS initiatives. The Assistant Deputy Under Secretary of Defense presides over the SSDB and is the Department's single point of contact for all federal strategic sourcing initiatives (United States Department of Defense, 2006). As shown in

Figure 11, each component has a Strategic Sourcing Coordination Group (SSCG) to execute strategic sourcing initiatives within its respective components. The SSDB is made up of the SSCG leadership from each component. This structure facilitates strategic decision-making and administers the strategic sourcing program across DoD (United States Department of Defense, 2006). Particular examples of strategic sourcing initiatives from each component will be identified in the remainder of this section.

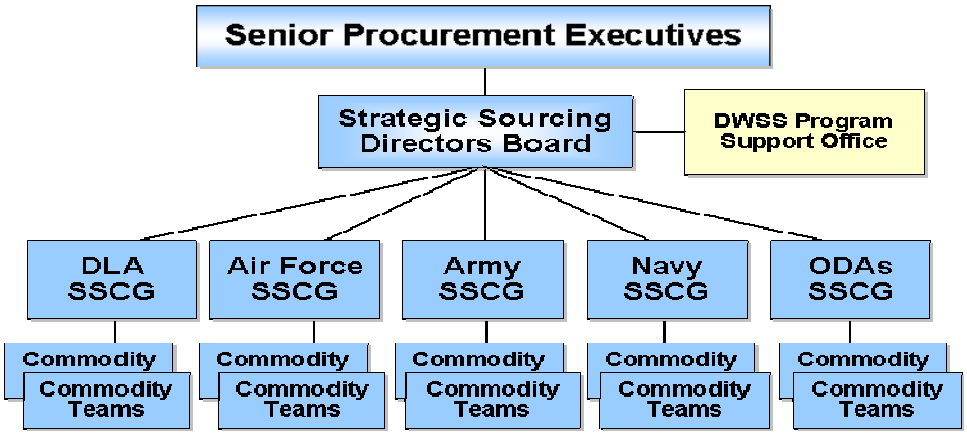

Figure 11. Strategic Sourcing Directors Board (SSDB)
(From OSD, 2005)

a. Department of the Army

The Army Material Command (AMC) plans to launch a joint service Purchasing and Supply Management (PSM) pilot program at the Army's Aviation and Missile Command (United States Department of Defense, 2006). The program will focus on depot-level reparables (DLR) for helicopter rotor blades and drive-train equipment. In addition, the program will have a cross-functional commodity team as well as a supplier management team. All these initiatives will enable AMC to transform from a tactical transaction-oriented command to a strategic supply-chain management organization (United States Department of Defense, 2006).

b. Department of the Navy

In 2005, the Department of the Navy employed a commodity strategy for cellular and data requirements (United States Department of Defense, 2006). The Navy centralized the requirements by issuing Department-wide contracts and mandating the

contracts' uses for all the Navy's cellular phone services, to include personal data assistants (United States Department of Defense, 2006). Additionally, the Navy is developing further commodity strategies for office supplies and furniture. These strategies will enable the Navy to standardize ordering processes, take advantage of lower prices resulting from economies of scale and to provide business intelligence on demand (United States Department of Defense, 2006).

c. Defense Logistics Agency (DLA)

The DLA also developed a strategic sourcing transformation venture, Supplier Relationship Management. This initiative transforms the DLA's current state of managing supplies to overseeing suppliers as a method to improve service to the ultimate customer, the warfighter. The DLA has formed long-term relationships with critical suppliers to collaborate and integrate information which is mutually beneficial (United States Department of Defense, 2006).

d. Department of the Air Force

The Air Force utilizes a strategic management framework. The Air Force's strategic management framework consists of a strategic plan, balanced scorecard, contracting strategy council, and planning, programming and budget system. This framework helps the Air Force to decide on the best utilization of its limited resources and to measure successful performance. Figure 12 depicts the Air Force strategic sourcing process, which enables the Air Force to strategically source through a spend analysis and through continuous monitoring of its strategy (Benza, 2007). The Air Force has implemented a number of strategic initiatives, including commodity councils. The next section will examine the Air Force's Information Technology Commodity Council (ITCC).

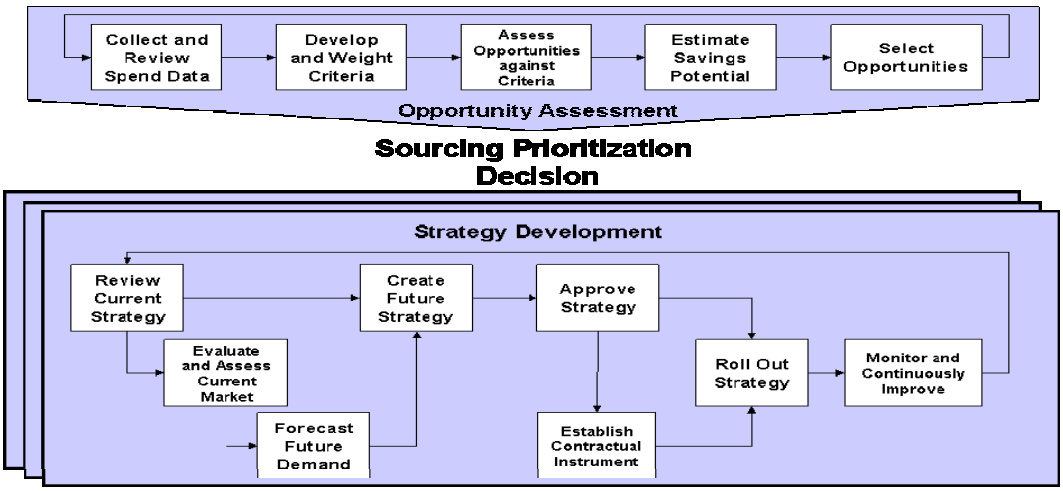

Figure 12. Air Force Strategic Sourcing Process
(From Benza, 2007)

One example of commodity council success is the Air Force ITCC. The ITCC is a centralized, cross-functional organization which formulates Air Force-wide buying, acquisition, and lifecycle support strategies to fill IT requirements. By centralizing planning, the ITCC manages Air Force spend to decrease total cost of ownership, decrease lead times, and increase Air Force purchasing flexibility. The organization integrates customers and suppliers to drive an enterprise-wide IT strategy (ITCC, 2007). The success of ITCC speaks for itself. In August of 2003, a $7.5 million award to Dell for 12,500 computers saved enough for the purchase of an additional 2,500 computers above the original planned procurement. In December of the same year, 14,863 desktops and 763 laptops for three different major commands brought a $4 million savings (Rendon, 2005).

The DoD is implementing many strategic initiatives to enhance warfighter support. Business transformation initiatives enable the Department to reduce operating costs enterprise-wide, become a better steward of taxpayers' money, and gain the ability to rapidly access information to make strategic decisions (Defense Business Transformation Agency 2006). Past practices, such as total lifecycle approach to major systems, were discussed in this section, along with current initiatives such as program approaches to services and the use of commodity councils to identify beneficial

opportunities. The optimal sourcing strategy varies according to the level of cross overlap with DoD and the importance of the mission, as depicted in Figure 13 (United States Department of Defense, 2005).

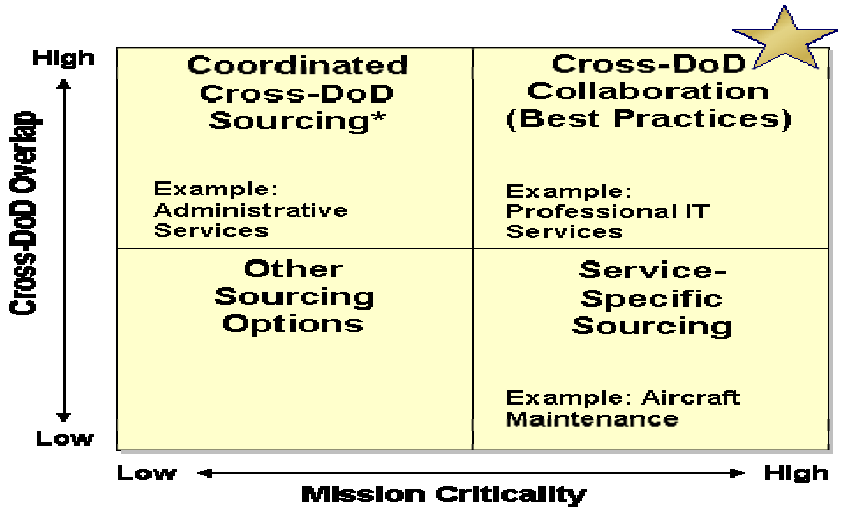

Figure 13. Approaches Based on Spend Characteristics
(From OSD, 2005)

G. SUMMARY

This chapter examined strategy and the ability to sustain a competitive advantage. Strategy is creating a unique and sustainable competitive position though trade-offs, effective value-chain execution, and a strategic fit between all the activities (Porter, 1996). Market structure analysis was discussed to examine external factors a firm must consider when developing a strategy. The next concept discussed was supply chain and supply-chain management. A supply chain is a network of activities involved in producing the goods or services to the customer. The magnitude of supply-chain management directly relates to the complexity of the supply chain. The subsequent section discussed the evolution of purchasing to supply management. Supply management is a strategic approach to purchasing. Next, commercial strategic approaches to procurement were discussed; the researchers then provided examples to illustrate how a firm's purchasing decisions must align with its overall strategy. Finally, the chapter

analyzed DoD strategic approaches through such initiatives as total the lifecycle approach, integrated services approach, and commodity approach.

The impact of purchasing as a source of competitive advantage is relative to its strategic importance and fit within the larger context of supply-chain management and overall corporate and military strategy. Strategic approaches begin with corporate or military acknowledgment of procurements' strategic importance. From this realization, leaders can formulate a strategic approach which can centralize spend for an enterprise-wide procurement organization and integration within the supply chain and strategy. The procurement organization's focus can become developing sourcing strategies to realize the full potential of spend to influence cost and quality relative to overall strategic requirements. The procurement organization achieves this harmony by tailoring service and commodity strategies commensurate with the importance of the product and complexity of the product market.

As the prior chart depicts, cross-DoD collaboration results in best practices in the acquisition of goods and services aligning with DoD requirements and strategy. The next chapter reviews contingency contracting to understand how a strategic approach may apply to a joint environment with high mission criticality.

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III. CONTINGENCY CONTRACTING

A contracting officer's duty is to enter into, administer, and terminate contracts in the interest of the United States Government in accordance with the *Federal Acquisition Regulation* (FAR) (FAR, 2007). A fundamental difference between a contracting officer and a contingency contracting officer is the physical environment and challenges in which a contingency contracting officer operates to acquire goods and services. A contingency is an emergency involving military forces stemming from natural disasters, terrorists, subversions, or military operations (Defense Acquisition University, 2005a). Examples include recovery from Hurricane Katrina in August of 2005, terrorist attacks on September 11th, 2001, and both OEF and OIF.

The acquisition environment of a contingency is dependent on whether the contingency is declared or undeclared. This explicit difference dictates the restrictiveness of the law, where declared is less restrictive. According to Title 10 United States Code (USC) a declared contingency requires one of two actions listed below to occur. Non-declared contingencies are all other DoD operations not mentioned below (Defense Acquisition University, 2005a).

- Designated by the Secretary of Defense when members of the Armed Forces may become involved in military actions against an enemy of the US
- Declared by the President or Congress when members of the uniformed forces are called to active duty (a reserve component mobilization) under Title 10, USC, or any provision of law during a declared war or national emergency.

The formal declaration of a contingency is a major event shaping the contracting environment. A declared contingency increases the responsive Simplified Acquisition Threshold (SAT) within the *FAR* from $100,000 to $1,000,000. Additionally, the use of Simplified Acquisition Procedures (SAP), within the *FAR* Part 13, increases from $5,500,000 to $11,000,000 under a declared contingency (Contracting Laboratory, 2007).

The Defense Acquisition University (DAU) defines contingency contracting as "direct support to tactical and operational forces engaging in the full spectrum of armed

conflict and military operations other than war, both domestic and overseas" (2005c). Contingency operations are landscapes consisting of the element of immediate risk to human life or significant national interests (Defense Acquisition University, 2005a).

This chapter on contingency contracting consists of three sections: *Stages of a Contingency*, *Geographic Combatant Commands*, and *Contracting in Contingency Operations*. Each section will build specificity toward understanding the contingency environment, the contingency planning process (specifically, the contingency contracting support plan), and the current contingency contracting situation in Iraq—illustrating the need for a strategic approach to contingency contracting operations in the future. A strategic approach will attempt to plan requirements and develop strategic sourcing initiatives, sourcing strategies, and commodity strategies across geographic areas to posture future contingency contracting support for geographic combatant commanders (who conduct military operations within unstable contingency environments relying on the individual services' contract authority).

A. STAGES OF CONTINGENCY

Prior to discussing the stages of a contingency in detail, it is important to understand the types of contract support existing within the stages of contingency contracting operations. There are multiple heads of contracting activities (HCA) across multiple military organizations, and multiple types of contracted support are utilized in joint operations because of the wide array of system support, external support and theater support. Systems support contracts maintain much of service components' equipment, awarded through and under the contract authority of the stateside systems program office. External support contracts, such as the Logistics Civilian Augmentation Program (LOGCAP), provide significant logistic and non-logistic support through contracts issued by the services' contract authority, normally during peacetime. Theater support contracts are issued by deployed contingency contracting officers to support in-theater customer requirements under the services' authority (United States Joint Forces Command, 2007). The amount of support each provides to facilitate contingency operations depends on the magnitude of the contingency.

According to the DAU Contingency Contracting Course material, contingency contracting operations may be segmented into four phases: mobilization/initial

deployment, buildup, sustainment, and termination/redeployment (Defense Acquisition University, 2005a). These are local tactical stages and run in conjunction with many other base buildups or relief efforts across an area or region. For example, the four uniform services and other DoD agencies, such as DLA, Defense Contract Audit Agency (DCAA), and Defense Contract Management Agency (DCMA), will each conduct contracting activities to support their respective efforts. The service and agency efforts further fragment to smaller, local contracting activities under their respective service or agency's contracting authority. Figure 14 illustrates the fragmented service support efforts to geographical combatant commanders, who do not have contracting authority.

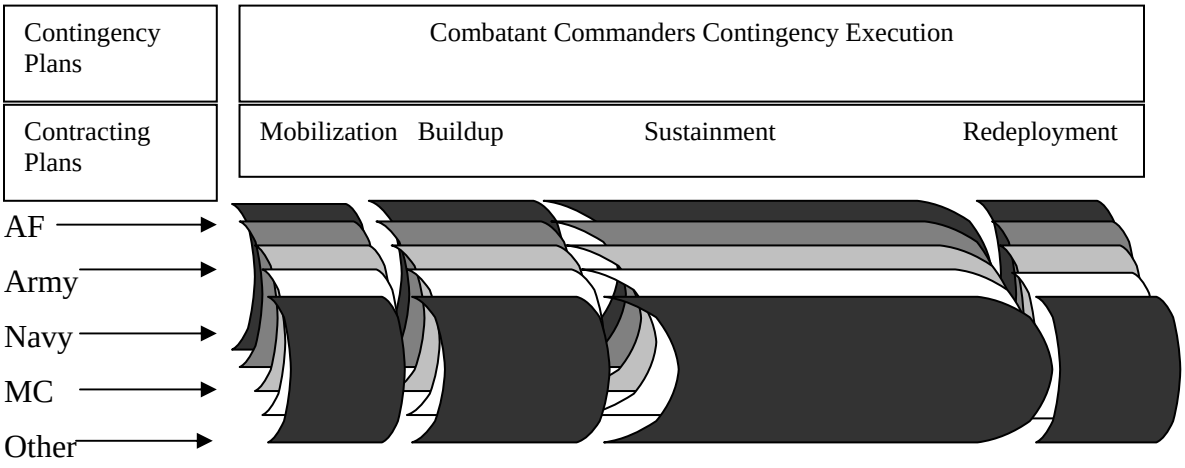

Figure 14. Four Stages of a Contingency Operation

The remainder of this section discusses the four stages in greater detail, drawing heavily from the DAU's contingency contracting course text. In relation to the figure above, notice the focal aspects of each stage. A strategic approach will later attempt to capture the focal areas prior to the onset of a contingency by jointly organizing the services' contract support to create an effective contracting command-and-control (C2) structure.

1. Mobilization/Initial Deployment

Ideally, this stage runs the first 30-45 days of a contingency. Extreme operation tempo, confusion, and controlled chaos characterize this initial stage. Establishment of

the unit's priority of needs to support troop arrival is the contingency contracting officer's number-one priority (Defense Acquisition University, 2005a). Examples of critical requirements during this stage include:

- Food Service and Water
- Billeting, Bath, Laundry, Utility, Refuse and Sanitation Service
- Equipment Rental, Transportation, and Ground Fuel
- Interpreters and/or Guides

Flexibility by the contingency contracting officer is paramount. However, urgency and responsiveness often create less-than-optimal arrangements without a large degree of flexibility. These arrangements can plague and prolong the future stages.

2. Buildup

The length of buildup directly correlates to the prior stages proactive measures to support and bed-down the main body of deploying troops. These troops will require additional volumes of service (Defense Acquisition University, 2005a). If contracts in the prior stage consider additional future troop arrival, the volume should adjust seamlessly. If the contracts in the prior stage were reactive to meet the immediate need without incorporating proactive measures, they may become a liability. The contracting officer will either need to start over, ideally considering future flexibility, or negotiate at a severe disadvantage.

Aside from assessing the flexibility of contracts' responsiveness to meet basic life support, additional requirements to meet effectiveness include: heavy equipment, construction material, horizontal construction, office equipment/furniture, quality of life/morale, welfare and recreation (TVs, VCRs and DVDs, gym and sports equipment). In conjunction with these acquisitions, the contracting officer becomes part of a contracting office which must focus on the following prior to sustainment (Defense Acquisition University, 2005a):

- Establishing C2 over local contracting and contracting-support personnel
- Establishing a reliable and responsive local vendor base
- Establishing flexible and efficient tools to meet common base requirements, such as Blanket Purchase Agreements

3. Sustainment

The shift to sustainment dictates comfortably meeting the everyday needs of forces. This stage will run until contingency termination and redeployment. If not done in prior stages, sustainment requires contracting to proactively view the contingency. The contracting activity will transition to more permanent facilities and equipment, along with long-term contracts, should the contingency dictate. The local contracting framework will deepen, from the prior stage, to incorporate the following measures (Defense Acquisition University, 2005a):

- Consolidate requirements into long-term contracts, where possible, to achieve economies of scale, reduce cost, and mitigate risk
- Improve documentation and internal controls
- Increase competition and vendor base from outside local area
- Plan for transition to termination/redeployment

4. Termination and Redeployment

The purpose of this stage is either to redeploy or forward-deploy. The volume and scope of the contracts reverts back to the levels of the initial stage. Contracting will have two main objectives (Defense Acquisition University, 2005a):

- Procure new requirements, such as: packing, crating, and freighting service, construction and wash racks for vehicles, and any necessary transportation
- Terminate and close-out existing contracts and agreements

This stage relies directly on the choices made in the prior stages. Similar to how buildup relies on flexibility to increase service volume, termination and redeployment depends on the prior stages' assessment of troop reduction. Although contingencies are comprised of a wide array of unknowns, the prior stages' decisions magnify.

Contracting must assess all government liabilities. This includes settling all claims and ratifications or commitments by unauthorized individuals. Contracting

officers ensure proper contract documentation exists to prove payments and return of any rental equipment. At this point, contracts can successfully close (Defense Acquisition University, 2005a).

5. Four Stages' Summary and Analysis

The DoD's theater contingency contracting requirements fragment tactically for the uniform services to execute. Tactical service operations further fragment contracting operations to sub-units or regional offices. Seamless and fluid transition between stages largely depends on the decisions made in the initial stage. Reasoning and planning done prior to the onset of the contingency will dictate whether the decisions are reactive or proactive. A lack of planning and information exchange can prolong the initial two stages and create claims stemming from inadequate policy and documentation, plaguing the termination and redeployment phase.

A strategic approach would emphasize joint integration of procurement strategy to complement operational strategy. Contingency operation plans are extensive. Reducing organic capability requires integrating contracting strategy with operational strategy to proactively view this theoretical framework. This integration may engage factors affecting each stage by taking a strategic approach to contingency contracting prior to mobilization. A strategic approach emphasizes the need to address the focal aspects of each stage prior to the onset of the contingency. One area in which to address and apply a strategic approach is the contingency contracting support plan (CCSP). The next section investigates this issue, beginning with a discussion and introduction to combatant commands, where the responsibility for geographic control of forces falls.

B. COMBATANT COMMANDS

As it has since the beginning of the republic, our nation continues transforming to better organize defense. The US military adapts constantly to organizational training, equipping, and commanding issues of world-wide military forces during peace and war (Lederman, 1999). The theme of reorganization oscillates between functional service control and geographic control of forces. Defense reorganization, occurring in the 1940s, placed geographic control under regional combatant commanders (Cole, Poole, Schnabel, Watson, & Webb, 2003). However, over the past decade, geographic commanders increasingly rely on contractors to meet many logistical and operational support needs

during combat operations and other missions. Attributing to this are reductions in the size of the military, increases in the number and size of operations, and increasingly sophisticated weapons systems (United States General Accountability Office, 2006). This presents a new twist to the functional-versus-geographic-control debate as combatant commands do not have authority under Title 10 U.S.C. to enter into contracts. This section focuses on four sub-sections, which identify military reorganization into the current combatant command and contingency contracting structure:

- Military Reorganization and Combatant Commands
- Current Regional Combatant Command Structure
- Contingency Planning
- Combatant Commands and Contingency Contracting

1. Military Reorganization and Combatant Commands

During the Eighteenth and Nineteenth Centuries, division of warfare along the waters' edge meant Army and Navy forces could, for the most part, operate independently. The Revolutionary War, War of 1812, Civil War, and Spanish American War of 1898 demonstrated examples of both cooperation and dissention between the two services. World War I would mark the last war of almost complete service autonomy as the airplane would create an overlap in capability and an inter-service debate (Lederman, 1999).

a. Unified Command Plan

The global scale of military joint operations required a change away from autonomous service operations to ensure combat efficiency. The theme of reorganizing became a shift from functional to geographical command during regional military operations. In 1942, prior to World War II, President Franklin D. Roosevelt unofficially created the US Joint Chiefs of Staff (JCS) to parallel the British Chiefs of Staff to direct the war effort. This was a major change to the US military's command structure (Lederman, 1999). In December 1946, after the war and due to the Navy's dissatisfaction with an ambiguous and unsatisfactory divide in command within the Pacific between Army General Douglas MacArthur (Commander in Chief, Army Forces, Pacific) and

Fleet Admiral Chester Nimitz (Commander in Chief, US Pacific Fleet), President Truman approved the first Unified Command Plan under control of the JCS (Cole et al., 2003).

Theater commanders now oversaw forces from each service within regional geographic areas. Service-specific forces fell under component commands within the unified commands. The service component commands reported to their respective service for training and equipping while receiving operational orders from the newly created unified commands (Lederman, 1999).

b. National Security Act of 1947

The passage of the *National Security Act of 1947* created the National Military Establishment (NME) with a civilian Secretary of Defense to oversee the military services, including the newly created Air Force. The Secretary of Defense became the principle assistant to the President on national security matters. However, the *Act* did not define the NME as an executive department like the individual executive service departments. Additionally, the *Act* formally recognized the JCS and charged them with formulating plans and unified commands around the globe (Lederman, 1999).

In 1949, amendments to the *Act* took a huge step toward unification of services. The NME became an executive-level department, the DoD. The services became departments within the new DoD under the direction, authority, and control of the Secretary. Congress also created the Chairman of the Joint Chiefs of Staff (CJCS) to preside over and assist the Joint Chiefs from the Army, Navy, and Air Force to provide military advice to the President and Secretary of Defense. Fearful of creating a single military commander, Congress forbade the Chairman from voting and did not allow authority over the JCS or services. Further, Congress rejected President Truman's request that the CJCS serve as principal military advisor (Lederman, 1999).

c. Eisenhower Reorganization of 1953 and 1958

President Eisenhower continued military transformation through two reorganizations. First, in 1953, the chain of command was organized to run from the President to the Secretary of Defense, then to the service secretaries, and then to the chiefs of each service. In 1958, the chain was altered to eliminate the secretaries and chiefs and run directly from the President to the Secretary of Defense and then to the Commanders of the Unified Commands. However, the JCS would serve as advisors to

the Secretary of Defense, issuing orders in the name of the Secretary of Defense; and the CJCS received voting rights as a "first among equals," not dominant JCS figure (Lederman, 1999). This would prove the final major reorganization until 1986.

d. Pre-1986 Reorganization

Two major problems existed in defense organization. First, the chiefs of staff were dual-hatted. In the centralized decision system, each chief's operational and budgetary responsibility closely aligned to his service, not to the DoD. This problem weakened unified combatant commanders' control. The service component commands reported to two chains of command: 1) to the combatant commanders for operations and 2) to the services for training and equipping. Service component commanders had tight ties to the services, weakening the unified combatant commands charged with regional warfighting responsibility. The second major problem was a weak Chairman of the Joint Chiefs of Staff—contributing to unclear and indecisive JCS advice to civilian leadership (Lederman, 1999).

Prior to 1986, a bombing of Marine barracks in Lebanon and a disorganized Granada invasion would catalyze another reorganization debate. These operations revealed a confused chain of command to the field, affecting joint operations and causing a lack of JCS influence on military policy (Lederman, 1999).

e. Goldwater-Nichols Act of 1986

The Goldwater-Nichols Act outlines eight objectives in reorganizing DoD: to strengthen civilian authority, to improve military advice provided to the President, the National Security Council (NSC), and the Secretary of Defense, to place clear responsibility on the commanders of the unified and specified combatant commands for the accomplishment of the missions assigned to those commands, to ensure that the authority of the commanders of the unified and specified combatant commands is fully commensurate to accomplish assigned missions, to increase attention to the formulation of strategy and contingency planning, to provide more efficient use of defense resources, to improve joint officer management policies, to enhance the effectiveness of military operations (*Goldwater-Nichols*, 1986). Reorganization since the original *Unified Command Plan in 1946* has created the current chain of command highlighted in Figure 15.

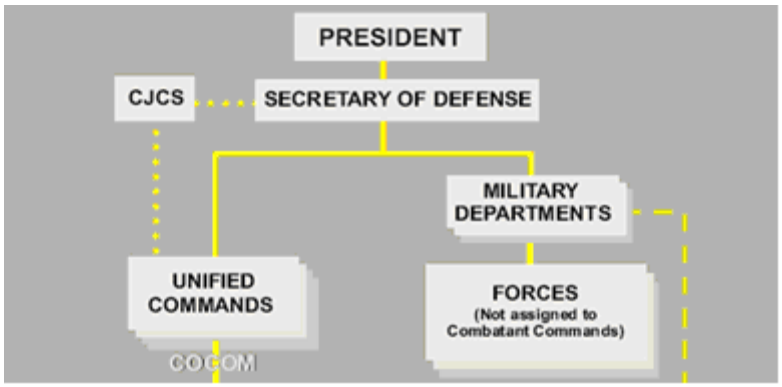

Figure 15. Chain of Command and Control
(From United States Joint Forces Command, 2001)

2. Current Geographical Combatant Command Structure

The current Unified Command Plan delegates geographical Combatant Commanders' area of responsibility (AOR). Training and equipping of forces remains a service responsibility, while command during regional military operations falls under geographical COCOMs. Currently, there are nine unified commands: four functional and five geographical commands. The functional commands include US Transportation Command (USTRANSCOM), US Special Operations Command (USSOCOM), US Joint Forces Command (USJFCOM), and US Strategic Command (USSTRATCOM). The five geographical commands are US Northern Command (USNORTHCOM), US Southern Command (USSOUTHCOM), US European Command (USEUCOM), US Pacific Command (USPACOM), and US Central Command (USCENTCOM), as shown in Figure 16. Additionally, on February 6th, 2007, President Bush consolidated command of Africa into the sixth geographical COCOM, US Africa Command (USAFRICOM) (Wood, 2006). Portions of Africa are currently within three commands: USEUCOM, USCENTCOM, and USPACOM.

Figure 16. Combatant Command Structure
(From Defense-Link, 2007)

Service Component Commands fall under and receive direction from the geographical COCOM. Figure 17 outlines the integration of supporting commands within USCENTCOM as an example. The next section focuses on constructing military operation plans (OPLAN) for execution by the COCOMs. The section following contingency planning introduces the contingency contracting support plan within the OPLAN and reintroduces USCENTCOM and investigates contingency planning leading toward past and present contingency operations.

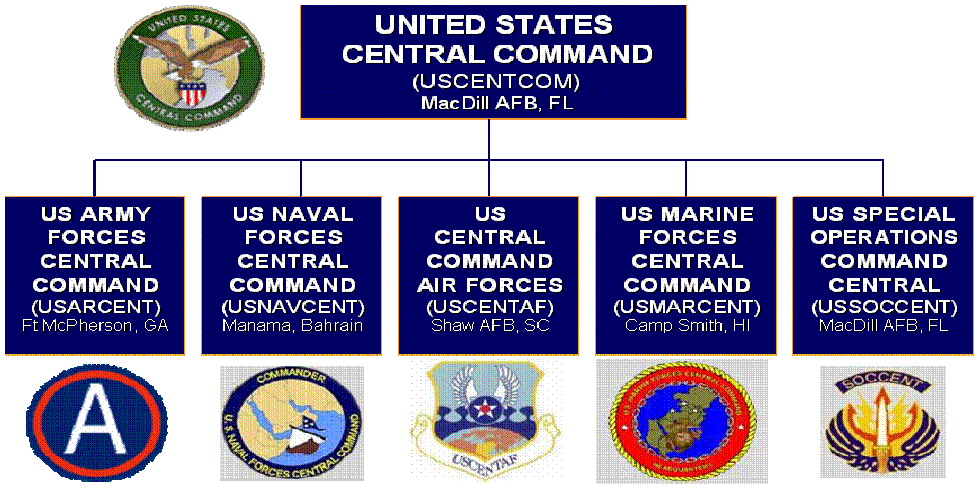

Figure 17. Service Component Commands
(From US CENTAF Brief, Air Combat Command Contracting Conference, 2007)

3. Contingency Planning

National security is among the fundamental national purposes the American people embedded in the constitution. The armed forces of the US provide the common constitutional imperative of common defense. Additionally, these forces participate in operations other than combat to advance and defend national interests (United States Joint Forces Command, 2000). The process of planning a joint operation produces a contingency plan, or OPLAN, for military action. The plan aligns with the President's national strategy, funding resources from Congress, and task assignments by the CJCS (Defense Acquisition University, 2005b).

This section introduces contingency planning, specifically by providing a process overview, an explanation of national security planning process, deliberate planning, crisis action planning (CAP) and joint operation planning and execution system (JOPES). This section should broaden or reinforce the fundamental planning process and introduce the CCSP within an OPLAN.

a. Process Overview

Figure 18 illustrates the players within the planning process. The upper cone of the pyramid consists of executive-level agencies. The National Command Authority (NCA) rests at the apex of the chart. This level consists of the President and the

Secretary of Defense setting the overall strategic direction of the US military (Defense Acquisition University, 2005b). The Joint Planning and Execution Community (JPEC) rests at the bottom two-thirds of the chart. The JPEC consists of training, preparation, movement, employment, support, and sustainment of forces in theater operations by commands and agencies. The next section will discuss the National Security Planning Process.

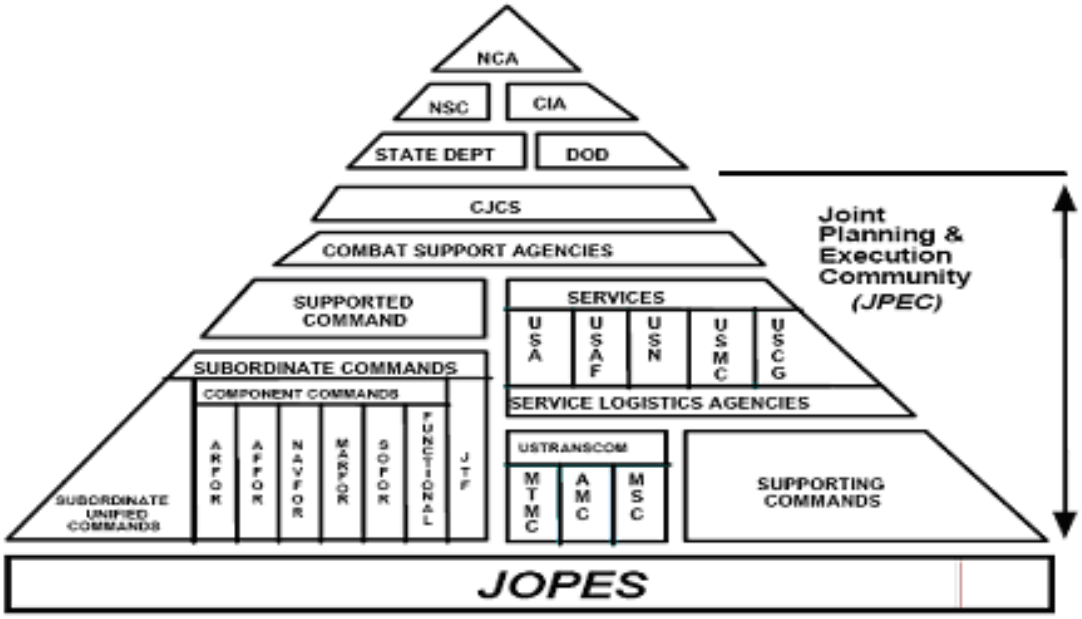

Figure 18. Participants in the Planning Process
(From DAU, 2005b)

b. National Security Planning Process

Figure 19 describes the four interrelated aspects of national security planning processes: the National Security Council System, Joint Strategic Planning System (JSPS), Planning, Programming, Budgeting, and Execution System (PPBES), and JOPES. This section will briefly discuss each area of the planning process and begin to focus on the JOPES. After discussing this aspect of the planning process, the study will explore contingency contracting planning and integration within JOPES.

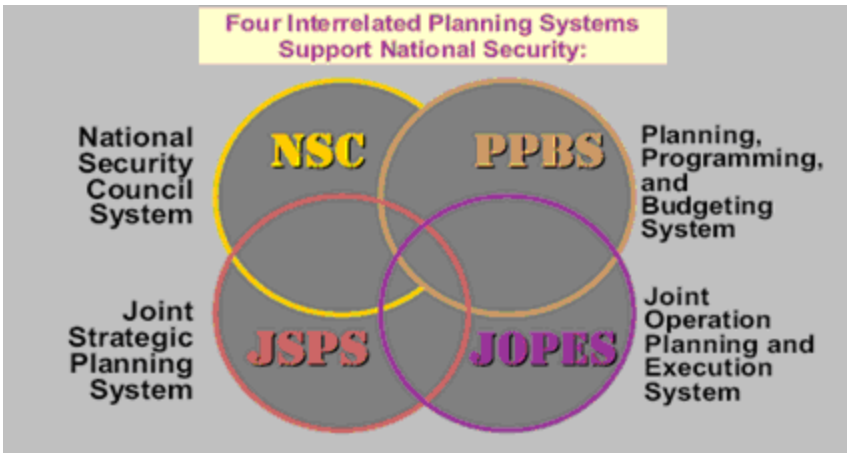

Figure 19. National Security Planning Processes
(From United States Joint Forces Command, 2000)
Note: PPBS has been changed to PPBES

The NSC consists of the President, as head, and includes the Vice President. Statutory members include the Secretaries of State and Defense, CJCS for professional military advice, and the Director of the Central Intelligence Agency as intelligence advisor. The NSC serves as the President's principle forum on national security and foreign policy matters (United States Joint Forces Command, 2000).

PPBES is chaired by the Secretary of Defense. The primary objective of this program is resource allocation to the armed services to execute aspects of the National Security Strategy and National Military Strategy. The PPBES enables military services and selected commands and agencies to develop and sustain military capabilities (United States Joint Forces Command, 2000).

The Joint Strategic Planning System (JSPS) is the connecting link between COCOM and national planning, the basis for campaign and operation plans, the formal system through which the CJCS coordinate with members of the JCS and COCOMs to provide military advice to the NCA and recommendations to the PPBES. The JSPS produces the National Military Strategy and the Joint Strategic Capabilities Plan to provide military plans, strategy, guidance, forces, resource requirements, and allocations necessary to carry out Presidential directives. JSPS also evaluates military capabilities, along with adequacy and risk with current programs and budgets (United States Joint Forces Command, 2000).

JOPES is the principle DoD system for translating policy decisions into operational plans and orders to effectively employ US forces. JOPES consists of deliberate planning and crisis action planning (CAP) within a single architecture (United States Joint Forces Command, 2000). This reduces time-refining results of deliberate planning readily accessible to planners in CAP during a crisis (Defense Acquisition University, 2005b). Figure 20 depicts the JOPES architecture—incorporating both the deliberate and crisis-planning processes, which are described below the figure. The remainder of this section briefly discusses deliberate planning and CAP.

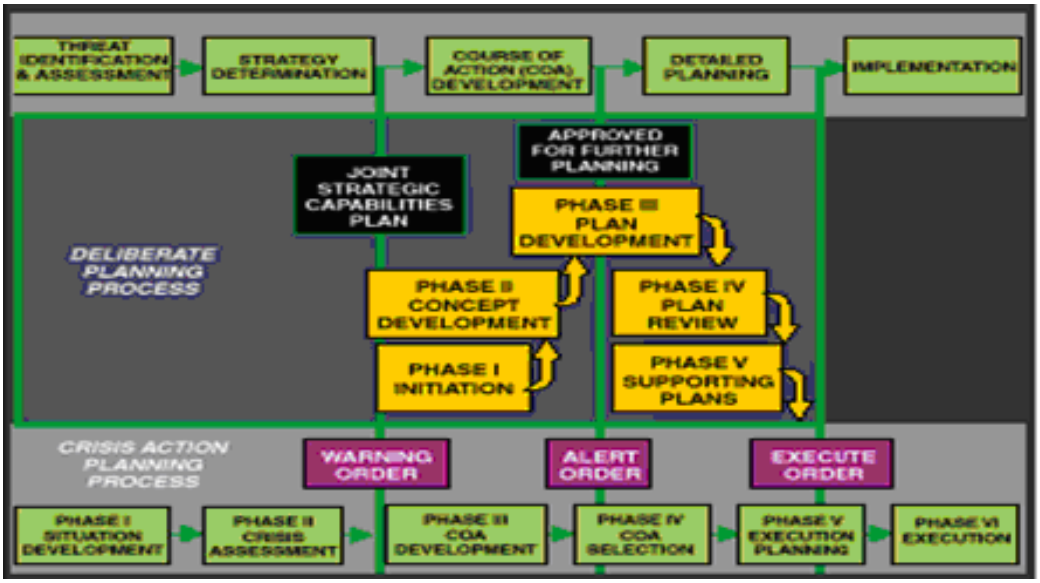

Figure 20. Deliberate and Crisis Action Planning Processes
(From DAU, 2005b)

c. Deliberate or Peacetime Planning

Deliberate planning anticipates future contingencies in which prudence drives a planning requirement. The process takes place when time permits total participation of the commanders and staffs of the JPEC. Developing and coordinating the plan among commanders, agencies, and services for review by the Joint Staff can take many months, possibly the entire two-year planning cycle (Defense Acquisition University, 2005b).

d. Crisis Action Planning (CAP)

CAP responds to crises threatening US interests by considering use of military force. In contrast to deliberate planning, CAP responds to situations developing very quickly. The CAP process parallels deliberate planning, but is more flexible in reacting to developing requirements. This process promotes a rapid flow of information and executable courses of action between the NCA and combatant commanders (Defense Acquisition University, 2005b). Figure 21 summarizes the joint planning process that leads to an operation order (OPORD).

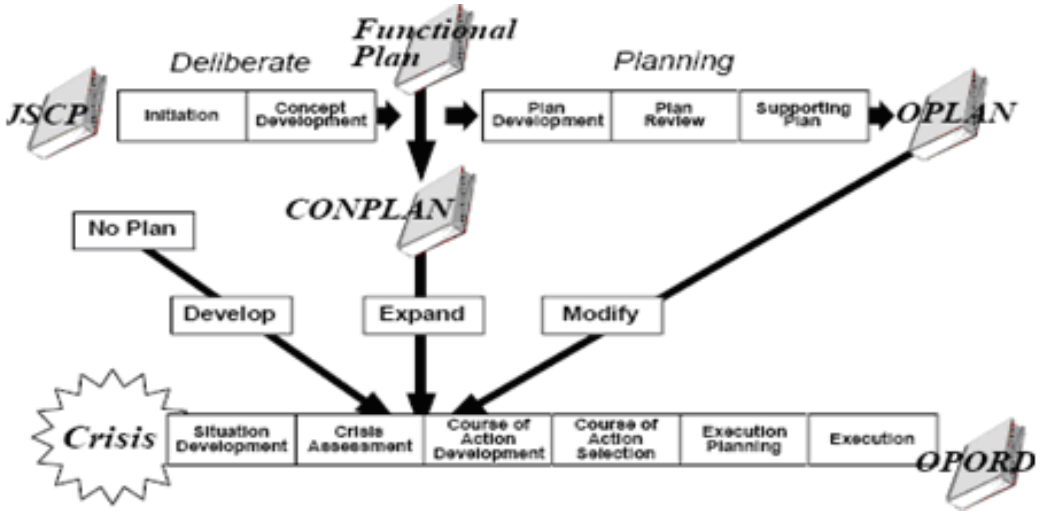

Figure 21. Joint Planning Summary
(From DAU, 2005b)

JOPES automated data processing turns an unacceptably slow, unresponsive, inflexible, deliberate process for planners to develop, analyze, refine, review and maintain joint operations and supporting plans into an appropriately dynamic system. Figure 22 details the components of a JOPES OPLAN that planners may tailor in the event of a crisis. Annex D of the OPLAN, Logistics, incorporates contracting via the contingency contracting support plan (Defense Acquisition University, 2005b). The next section will discuss COCOMs and contingency contracting.

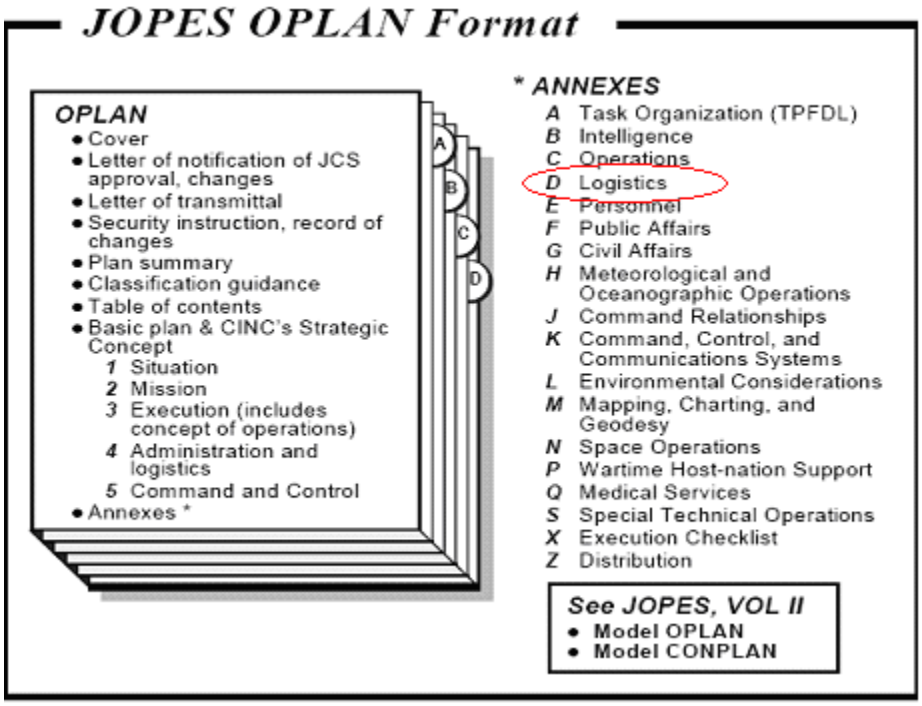

Figure 22. Components of a JOPES OPLAN
(From DAU, 2005b)

4. Combatant Commands and Contingency Contracting

Contingency contracting support to geographical COCOMs becomes interesting as geographic control of forces remains, but the amount of organic forces shrinks. Geographical COCOMs are the authority for military operations within their area of responsibility, but rely on increasing amounts of contract planning and support to fill the gap between decreasing military capability and increasing numbers of operations and weapon-system sophistication. This is the new twist to geographic control of forces—a situation in which individual services possess authority to enter into contracts under Title 10 U.S.C. Depending on the size, location, scope, and need for joint integration, there are three main contracting organizational options: 1) service component support to own forces, 2) designation of lead agency, 3) joint contracting command (United States Joint Forces Command, 2007). This section focuses on the contingency contracting support plan and the effect of COCOMs relying on individual services' Title 10 USC contracting authority, specifically within USCENTCOM.

a. Contingency Contracting Support Plan (CCSP)

The supported commander directs the preparation and submission of supporting plans during the final stage of the deliberate planning process. A CCSP outlines plans and procedures in response to disaster relief, rapid deployment logistics support, and support of deployments of US or allied forces outside of the continental US. A CCSP ensures contracting receives proper attention within logistics plans (Defense Acquisition University, 2005b). The DAU outlines what a CCSP should establish:

- Command-and-control relationships
- Location and structure of contracting offices and sub-offices
- Procedures for appointing, training, and employing ordering officers, contracting officer representatives, disbursing agents, and government purchase cards
- Policy on ratifications and claims
- Manpower, equipment and supplies for contract support and deployment sequence
- Types of supplies, services, and construction support customers require, along with prioritization or control of scarce commodities or services
- Procedures for defining, validating, processing and satisfying requirements
- Procedures for closing-out contracts and redeployment
- Security requirements for contracting and contractor personnel
- Specific statutory/regulatory constraints within the environment
- Concept of contracting operations synchronizing with the support plan
- Description and assessment of host nation agreements, customs, laws, culture, language, religion, and business practices impacting contracting operations
- Environmental considerations impacting contracts (within Annex L)

Normally, the CCSP is developed by the geographic command J-4 staff, logistics, and assisted by the lead service, if designated. Additionally, each service component should publish a CCSP that closely follows that of the geographic support plan (United States Joint Forces Command, 2007). If these aspects exist within a

contingency contracting support plan, a strategic approach to contingency contracting may alleviate the problems within the standard stages of a contingency, as discussed earlier. Figure 23 shows the integration of supporting plans in relation to the OPLAN.

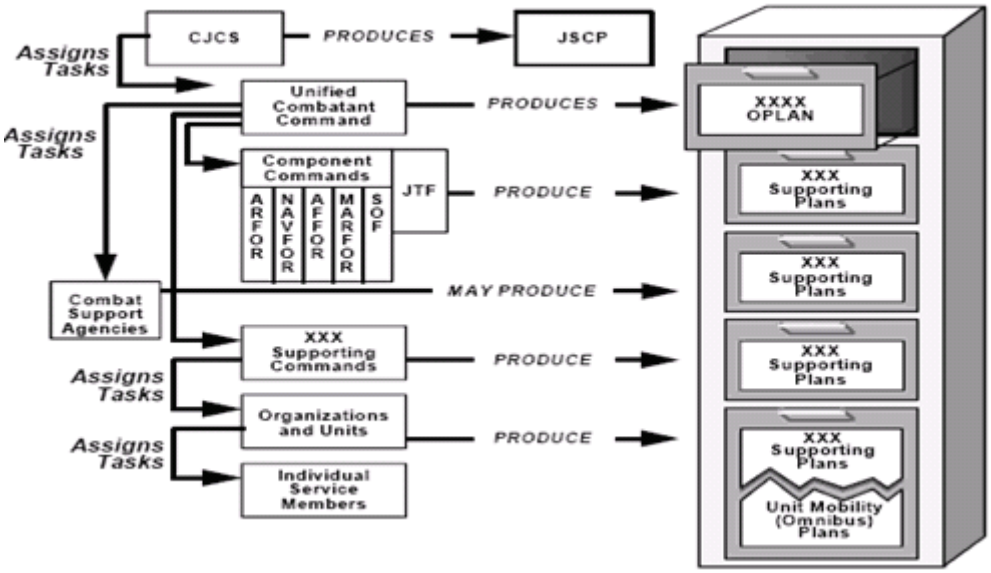

Figure 23. Supporting Plans
(From DAU, 2005b)

b. Title 10, USC and obligation authority

The USC consolidates and codes the law of the US; Title 10 within that code addresses armed forces (Title 10 USC, 2004). As discussed earlier, Title 10 USC vests contracting authority within the services and support agencies, not geographic COCOMs. However, USSOCOM and USTRANSCOM, two functional unified commands, do have contracting authority. Title 10 USC Section 164 (c) (A) assigns the following powers and responsibilities to geographic COCOMs (Title 10 USC, 2004):

> Unless otherwise directed by the President or the Secretary of Defense, the authority, direction, and control of the commander of a combatant command with respect to the commands and forces assigned to that command include the command functions of—(A) giving authoritative direction to subordinate commands and forces necessary to carry out missions assigned to the command, including authoritative direction over all aspects of military operations, joint training, and logistics.

This statement aligns with the geographic control of forces supporting COCOMs. The last sentence states authoritative direction of all aspects of military operations, which includes logistics. Figure 24 is an organizational chart of USCENTCOM, including logistics—in which a contracting branch exists. The challenge at this depth of logistical direction is not having actual contract authority and having to integrate regional logistical support across each service within a country and across countries.

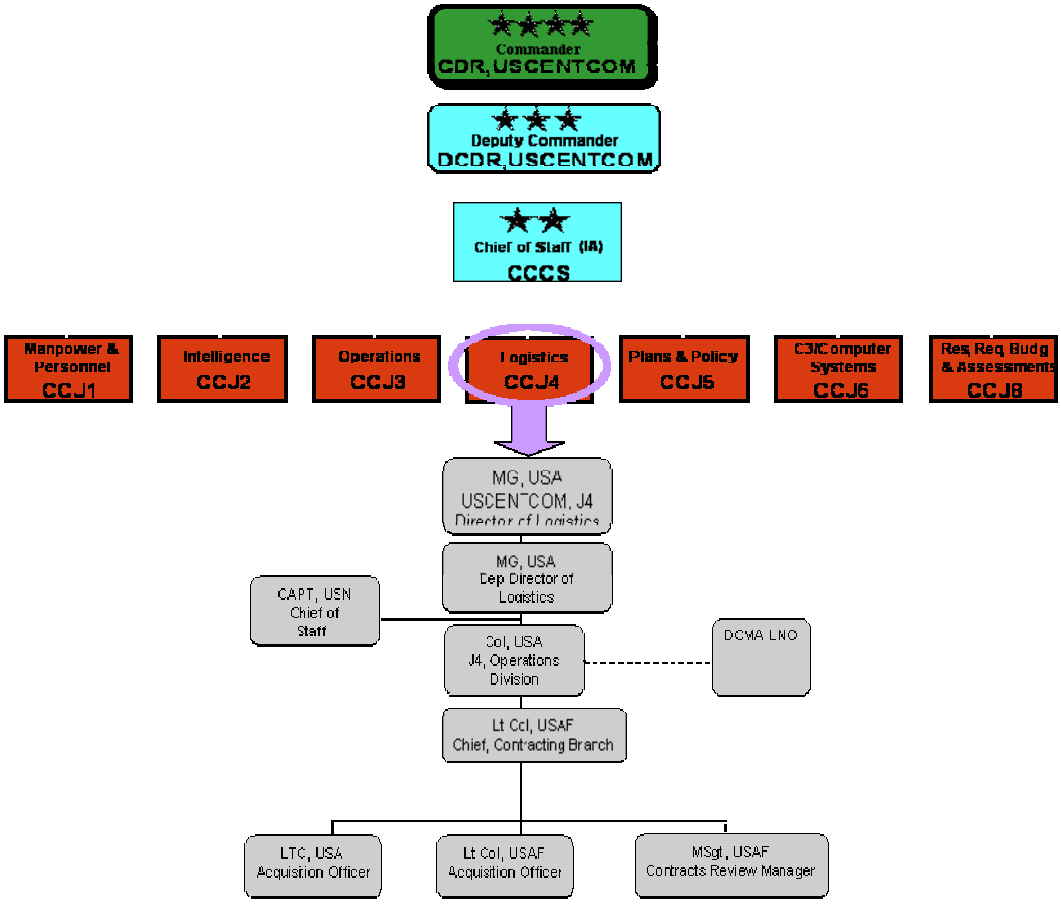

Figure 24. USCENTCOM Organizational Structure
(After USCENTCOM, 2007)

The mission of the USCENTCOM J4 Operations/Contracting cell within USCENTCOM consists of: creating policy and plans for USCENTCOM AOR contracting, exercising C2 and authority for effective execution of AOR contracting requirements, and serving as acquisition advisors for headquarters, USCENTCOM

Commander, and the J4 staff. The cell focuses on three areas: establishing clear lines of C2 through lead service components, securing visibility into AOR contracting through reporting, and developing, integrating and coordinating contingency contracting operational plans. However, USCENTCOM does not have contracting authority, which remains at the individual service, combat support, and select functional unified command level (United States Central Command, 2007). One tool attempting to integrate contracted logistic support within a country is the designation of an executive agent.

c. Executive Agent

Executive Agent designation stems from the Secretary or Deputy Secretary of Defense; he assigns specific responsibilities, functions, and authorities to a theater contracting activity to support the joint force to integrate common-use logistics between two or more DoD components (United States Joint Forces Command, 2007).

The contracting cell within USCENTCOM J4 Logistics is the lead component for joint logistics and contracting. However, services execute contracting authority within, and in support of, USCENTCOM's AOR. To secure a contract, another organization outside of USCENTCOM must agree to execute that contract. USCENTCOM is assigned responsibility for coordinating joint logistics and contracting common item and common service-support functions. The lack of a joint strategic approach creates a fragmented region of contract authority for USCENTCOM to coordinate. Figure 25 first shows the AOR and below, the component command's executive authority or lead component status within the fragmented region. Although a lead component is designated, other service components conduct contracting operations within the same region to support operations.

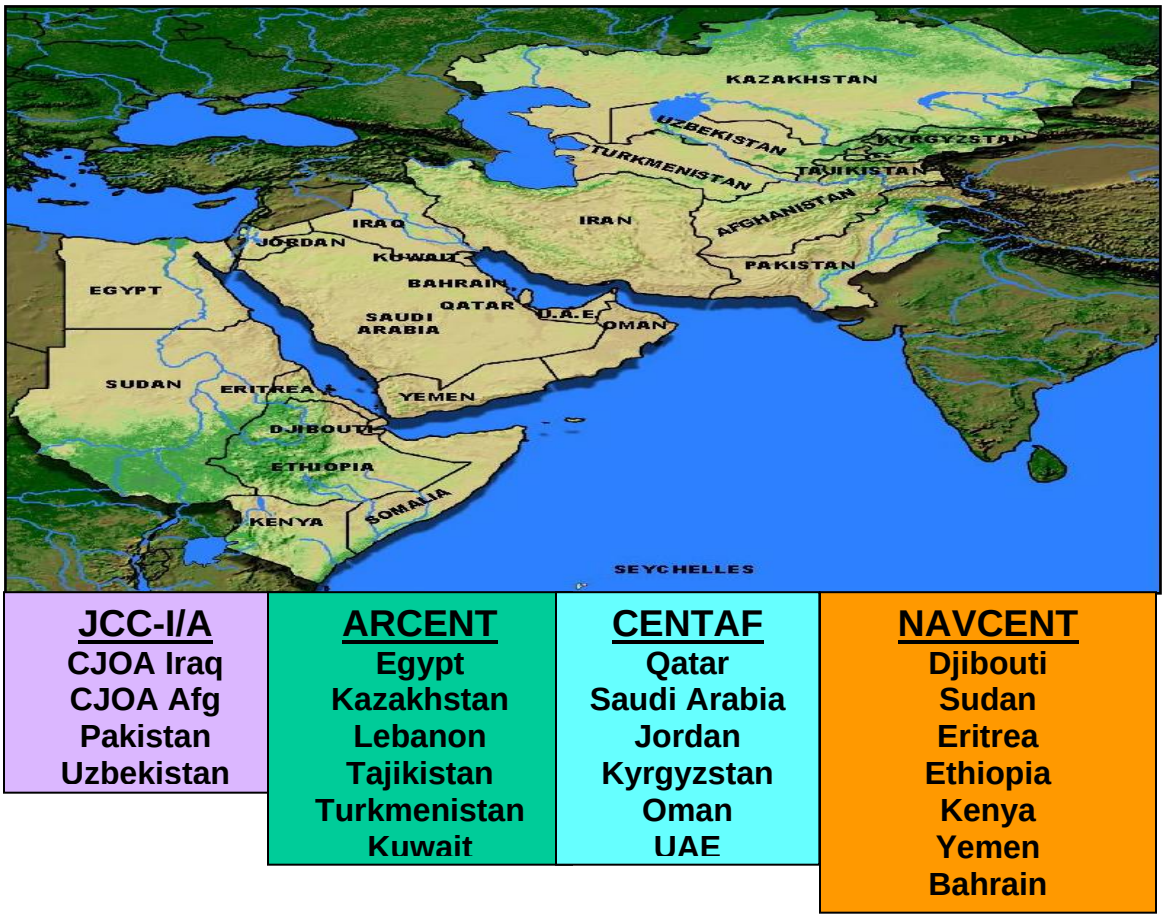

Figure 25. USCENTCOM AOR and Service Component Authority
(After USCENTCOM, 2007)

The problem this fractionality creates is that no one contracting agency has oversight over all agencies executing contracts in theater. USCENTCOM identifies several operational effects stemming from this problem: inaccurate and untimely situational awareness of contracting activities, lack of ability to enforce command-wide contracting policies, inability to achieve unity of contracting effort to support the warfighter, and difficulty managing and directing contractor accountability and arming.

This section discussed the origins of COCOMs stemming from a functional versus geographical debate. The current COCOM structure was introduced, along with the contingency planning process. COCOMs and contingency contracting section linked the planning process to the CCSP. Many contracting organizations are operating in geographical COCOMs and within the contingency theater itself. The next

section, contracting in contingency operations, will further discuss the most recent issues combatant commanders face with fragmented contracting support from service components in past and current operations.

C. CONTRACTING IN CONTINGENCY OPERATIONS

This section of the chapter discusses the actual problems and issues related to contingency contracting. An important point to note is that contingency contracting is not a new concept. For this reason, a brief background of how contracting has been used throughout American military history is essential. A more detailed analysis of recent contingency operations will follow and lead this investigation into the current contracting support organization for OEF and OIF, the Joint Contracting Command-Iraq/Afghanistan (JCC-I/A).

1. History

In the late Eighteenth Century, the United States military was established via the American Revolutionary militia. The American Revolutionaries solely focused their organic capabilities on the war strategies and battles at hand. Consequently, the leaders heavily depended on external logistical support to provide basic life support to the troops, such as food, clothing, and shelter. The US government, even during its infancy, recognized the importance of outsourcing external support for the military (Luse, Madeline, Smith & Starr, 2005). Robert Morris, Superintendent of Finance in 1781, stated, “in all countries engaged in war, experience has sooner or later pointed out that contracts with private men of substance and understanding are necessary for the subsistence, covering, clothing, and moving of an Army” (Luse, Madeline, Smith & Starr, 2005). Though the process was not formally recognized as contingency contracting at the time, the principles and objectives of the modern version of the process are identical to those Morris described. This direct purchase system, not unlike today’s contingency contracting, had its share of problems. George Washington and Alexander Hamilton observed that contractors were often more concerned with increasing their profits than with providing the supplies and services the Army required (Shrader, 1999). Another significant problem during this period was contractors failing to meet delivery requirements. A notable delinquent contract was Eli Whitney’s failure to meet delivery

schedule of 4,000 muskets to the War Department; the requirement was fulfilled eleven years after the established date (Nagle, 1992). Despite recurring problems, the military has continued to use private industry to augment its logistical force.

The reliance on the private sector to provide logistical support has been a factor in numerous military operations throughout American history. Table 1 illustrates the types of goods and services that the military contracted for in support of various conflicts or contingency operations. An in-depth analysis of the more recent military operations will be examined in the following sections.

Time Period	Conflict	Contracted Goods & Services
1812 -1815	War of 1812	Uniforms, muskets, cannonballs, shells, construction (gun carriages, ammunition wagons), rations
1861 -1865	Civil War	Clothing, small arms, muskets, heavy ordinance, horses, construction projects, chartered/purchased gunboats and tugboats, railroad transportation of troops and supplies
1914 – 1918	WWI	Vehicles, aircraft, machine guns, food, construction, munitions, ships
1939 – 1945	WWII	Aircraft, munitions, ships, torpedoes, armed vehicles, fire-control equipment
1965 – 1973	Vietnam	Field rations, petroleum products, ammunition, construction, military aircraft

Table 1. Historical Types of Contracted Goods and Services
(After Nagle, 1999)

2. Operation Desert Storm (ODS)

ODS, like other contingency operations, had its fair share of problems in terms of contracting once US troops were in theater. The stateside contracting process for equipment requirements that could be fulfilled within six months was streamlined by the Air Force through the development of the Rapid Response Process (RRP). The RRP was initiated in order to accelerate standard procurement processes to be more responsive to the requirements supporting ODS (Killen & Wilson, 1992). According to Killen and Wilson (1992), the only items that would be considered as a RRP program were items commercially available, items in the final stages of development, or items that were early pilot production types of equipment. The RRP significantly reduced the administrative

burden, allowing essential equipment procurement be expedited and shipped to the warfighter. Although efforts were being made by the services to better support their respective troops, contracting problems on the ground were not avoided.

Killen and Wilson provide numerous examples of problems that the contingency contracting officers supporting ODS in-theater encountered. Since the contingency contracting officers operated with much autonomy and little or no administrative support, they spent a great deal of time on contracting-support issues. Time spent on developing the vendor base, training other contingency contracting officers coming into theater who had minimal experience, and working through the language barriers while ensuring the vendors understood the requirement and terms of the contracts were daily issues facing the contingency contracting officer (Killen & Wilson, 1992). Another significant problem is that "there appears to be a definite need for requirements to be consolidated among units before writing contracts for individual units" (Killen & Wilson, 1992). Problems similar to those of ODS resurfaced later in Afghanistan and Iraq.

3. Operation Enduring Freedom (OEF)

The research conducted for this report found very little information regarding the status of contracting support in Afghanistan from 2001 to 2003, when US troops entered Iraq. This is most likely due to the small amount of reconstruction in Afghanistan as compared to Iraq and the funding being at a much lower level than in OIF. Therefore, this section draws heavily on AARs from the contingency contracting officers in Afghanistan.

In October 2001, when troops entered Afghanistan, their contracting support personnel were plagued with many of the same problems that their predecessors faced a decade earlier during ODS. A lack of a contracting organizational structure, inefficient resource allocation, and minimal training to the incoming contingency contracting officers were a few of the deficiencies during the initial phases of OEF. Not having a coordinated contracting structure in a joint contingency environment led to many other problems.

In the summer of 2004, there were five main military installations supporting operations in Afghanistan: Bagram Airfield, Kabul Compound, Kandahar Airfield, Salerno and Karshi Khanabad in Uzbekistan (K2). One contingency contracting officer reported that in June 2004, there were contracting offices at four of the five

installations—consisting of 23 contracting personnel supporting approximately 40,300 troops (Thaxton, 2004). In addition to troop support, the military contracting officers had to provide contracting support to the State Department and were not trained in USC Title 22 procurement policies. Manning shortages and the uncertainty of replacements for redeploying contracting officers significantly impacted the dual support role (Thaxton, 2004). Although a review of the AARs revealed a multitude of problems in Afghanistan, contingency contracting officers were resourceful in their acquisitions.

Despite the manning issues in Kandahar, a company grade officer was able to leverage the vendor bases of other contingency contracting officers throughout the USCENTCOM AOR. Although a theater-wide system of synchronizing efforts between the contracting offices did not exist, he tapped into the resources of contingency contracting officers already located in Karachi, Pakistan, and Seeb, Oman, to obtain the essential supplies not available in Afghanistan (Rockow, 2003). There was also the potential to employ the vendor base of Dubai, UAE, at a later time. An approach such as this can be taken to a higher level and may provide a positive impact in terms of economies of scale. Centralizing like requirements to one activity and decentralizing the ordering authority on a contract vehicle (such as a blanket purchase agreement, BPA) would make efficient use of an inadequately staffed contracting office (Rockow, 2003). This concept is further explained in the section on the joint contracting command.

When troops entered Iraq in March 2003, there was no unity of effort with regards to contracting throughout either Iraq or Afghanistan or between the two countries. Similar problems had been seen during the build-up phase of OEF almost two years prior. Again, there was no structure in place to support the contracting efforts—forcing multiple units to operate on their own with no coordination or communication with other units. The reconstruction effort in Iraq experienced unity-of-effort issues as well, but not to the extent of the contracting in support of the forces. The following sections discuss contracting operations in Iraq in terms of both the support of the forces and the reconstruction effort; they will also investigate the organizations that provide contracting support to each. The incorporation of diverse contracting support organizations in Afghanistan and Iraq into one central authority will be discussed later in this chapter.

4. Operation Iraqi Freedom (OIF): Supporting the Force

During the initial build-up phase of OIF, there were only 24 military contingency contracting officers supporting approximately 120,000 troops on the ground (Cunnane, 2005). These contracting support personnel were operating independently of one another. As the operation transitioned into the sustainment phase, more than a year after the operation had begun, additional contingency contracting officers were slowly entering the theater. Because the initial structure of the contracting organization was not set-up to support a prolonged sustainment phase, the problems that contracting officers encountered grew in volume and complexity.

Not unlike contingency contracting officers deployed in support of OEF, those supporting OIF produced a plethora of AARs. Two specific AARs, reviewed from Balad Air Base and Tallil Air Base, provide insight into the issues that contingency contracting officers were facing over a year into the operation. Balad's main concern was issues pertaining to delivery of goods (Moody, 2004). Consolidation and prioritization of requirements were significant issues that were stressed by the Tallil office (Bailey, 2004). Additionally, the Tallil office was adamant about consolidating the two contracting offices on the air base. The office chief felt that his efforts to consolidate the two Tallil offices for economy of scale efficiencies and to share vendor bases were disregarded by higher authorities (Bailey, 2004).

Collocated contracting offices developed their vendor base independently of one another and typically created competition between them due to the duplication of effort. There was little communication and information sharing between the different contracting organizations. Contingency contracting officers stressed the need for consolidating requirements to their customers; however, this remained at the tactical level and was not pushed to any central contracting office for further possible consolidation. In the case of the Tallil officer, consolidation efforts of this magnitude didn't come to fruition because no action was taken to consolidate the offices—a stepping stone to having a more strategic effect.

Establishing a joint contracting organization was one solution that the acquisition leadership had been discussing. When it was introduced in the summer of 2004, many of the contingency contracting officers concurred with the need for a joint contracting

concept and welcomed its potential benefits. However, the Balad contracting officer was not a proponent for the joint command in Balad at that time, since the base was still in the build-up phase. Moody (2004) noted in his AAR that the implementation of a joint contracting organization should be evaluated for each contingency operation independently of each other; it is not a single solution for every situation. Other challenges the Balad office encountered during the first few months of the transition into the sustainment phase were shortages of construction supplies from the local economy, long lead-time for delivery of supplies due to significant security issues, security concerns for local vendors, and contracting personnel being tasked by other units for non-contracting duties (Moody, 2004). Leveraging resources from other contracting offices in a particular country may provide relief for many of these problems. Figure 26 illustrates the multiple contracting offices often operating on the same base or within a region of multi-national division.

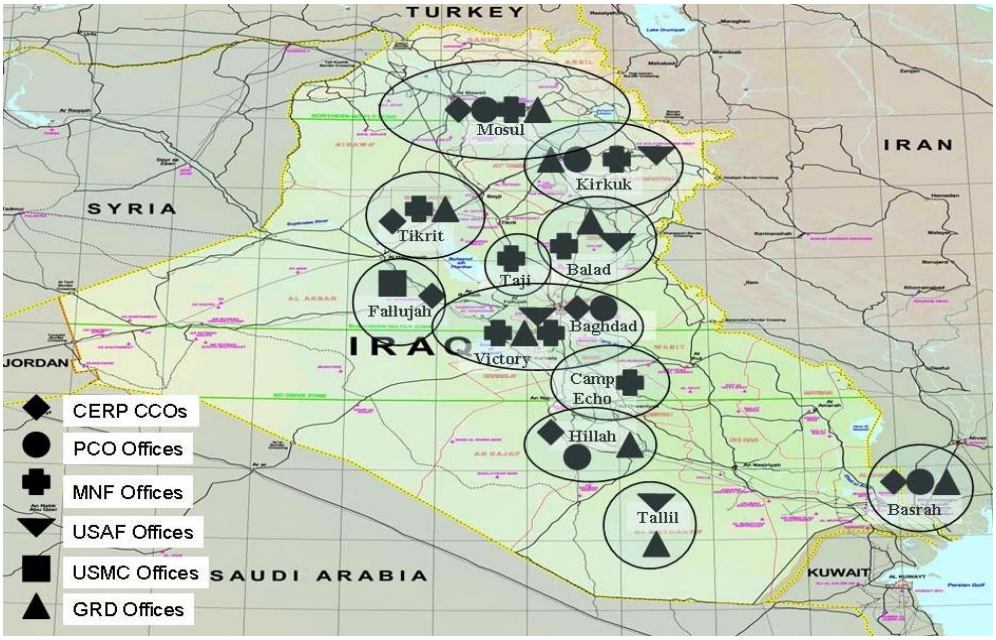

Figure 26. Geographical Representation of Contracting Offices in Iraq
(After Winiecki, 2005)

With little contract support personnel available in-theater, the need for coordination between contracting officers was becoming more obvious. Once the operation had begun its transition into sustainment, the acquisition leadership pushed for

a joint environment by establishing an acquisition plan that would span the entire AOR of Iraq. An essential element for an effective sustainment-based strategy is creating unity among the different contracting efforts in Iraq (Cunnane, 2005). Establishing unity of effort within the DoD was an enormous task and would take time to develop, organize, and implement. It was a task that could have been mitigated at the forefront of the planning process. The failure to define contracting and procurement roles and responsibilities resulted in a fragmented system that did not allow for the collaboration and coordination of contracting and procuring strategies (Special Inspector General for Iraq Reconstruction, 2006).

The next section will illustrate the myriad Iraqi reconstruction management offices that have evolved since the onset of OIF. The previous sections on force support in Afghanistan and Iraq, along with the following section on reconstruction, will be used later to discuss the recent merger into the joint contracting command.

5. Iraq Reconstruction and the Project and Contracting Office (PCO)

In an effort to manage the potential reconstruction requirements, the Office of Reconstruction and Humanitarian Assistance (ORHA) was officially established in April 2003. The ORHA's mission was to define the scope of the reconstruction effort, as well as to provide humanitarian assistance to Iraq. In May 2003, the DoD established the Coalition Provisional Authority (CPA) to serve as a temporary government. Realizing the magnitude of the reconstruction to be accomplished was too great and that the humanitarian assistance requirement never materialized, the CPA absorbed ORHA in June 2003; together, they became the reconstruction management office (*Draft: PCO history,* 2007). In November 2003, the US DoD established the Program Management Office (PMO) under the CPA to manage the reconstruction projects and to aide in stabilizing the Iraqi economy. Initial contracts for reconstruction of the Iraqi infrastructure were awarded in March 2004. In May 2004, the National Security Presidential Directive #36 ordered the establishment of the Project and Contracting Office (PCO) and the disbandment of the CPA due to the transfer of sovereignty to the Iraqi Interim Government, therefore dissolving the PMO (*Draft: PCO history,* 2007). The PCO assumed the program management responsibilities for reconstruction in Iraq.

The PCO's program management approach to operating in a contingency environment proved to be an effective tool. By employing a cross-functional team to include engineering, finance, contracting, and logistics, the PCO was able to successfully accomplish its mission. In December 2005, the PCO merged with the US Army Corps of Engineers (USACE), Gulf Region Division (GRD). The following section explains how contracting in support of the coalition forces in both Iraq and Afghanistan and the GRD's contracting requirements were all pulled together to form the Joint Contracting Command.

6. Evolution of the Joint Contracting Command—Iraq/Afghanistan

Within a year of putting troops on the ground in Iraq, the challenges facing the contracting leadership were daunting. To meet these challenges, the concept of a Joint Contracting Command—Iraq was introduced to support and sustain coalition forces, rebuild the Iraqi infrastructure, reduce LOGCAP dependency, and to provide an organizational structure to support theater contracting operations (Cunnane, 2005). This section will explain the early stages of the development of the Joint Contracting Command-Iraq (JCC-I) and incorporation of Afghanistan (JCC-I/A) into the Joint Contracting Command by means of USCENTCOM fragmentary orders (FRAGO). The information draws heavily upon an article published by LT Danny Houglan in *Army ALT magazine*, January-March 2006, entitled "Evolution of the Joint Contracting Command-Iraq/Afghanistan" (Houglan, 2006).

a. FRAGO 09-668

In November 2004, USCENTCOM issued FRAGO 09-668, creating the JCC-I as a Major Subordinate Command (MSC) of the Multi-National Forces-Iraq (MNF-I). The focus of consolidating contracting organization/reporting relationships was to create a unity of effort in providing contracting support to leverage contracting resources and expertise for efficiency across the entire theater of Iraq (United States Central Command, 2004). To facilitate contracting efficiency, the Assistant Secretary of the Army for Acquisition, Logistics and Technology, having already been designated DoD executive agent for contracting in Iraq, established the commander, the JCC-I as the head of contracting activity (HCA) for Iraq reconstruction and coalition forces

contracting support. The JCC-I was established on January 29, 2005, and immediately set out to build the then-nascent command and integrate itself as one of the five MSCs under MNF-I.

b. FRAGO 09-790

In July 2005, USCENTCOM issued FRAGO 09-790, rescinding FRAGO 09-668 to update contracting and organizational changes requested by USCENTCOM and recently executed by the Department of the Army. The purpose of this FRAGO was to unite contracting efforts in Iraq and Afghanistan—bringing contracting in Afghanistan under JCC-I HCA authority (United States Central Command, 2005).

c. FRAGO 09-1117

In November 2006, USCENTCOM issued FRAGO 09-1117, directing the commanders in-theater (including MNF-I and Combined Joint Task Force (CJTF)-76 in Afghanistan), along with the service component commanders (including ARCENT, CENTAF, MARCENT, and NAVCENT), to update their contracting organizations and relationships within USCENTCOM's AOR to better achieve unity of effort in Iraq and Afghanistan (United States Central Command, 2006). Two years after establishing a joint contracting command, there were still a multitude of problems—many of which derived from a lack of unity of effort within both AORs. Throughout its evolution, JCC-I/A has formed by incrementally assimilating contracting organizations that were providing piecemeal support to coalition forces. USCENTCOM and JCC-I/A conducted a review of the contracting function in Iraq and Afghanistan, finding increasing demand for scarce contracting assets and the need for a centralized contracting organization with complete visibility over all contracting efforts for forces in both AORs (United States Central Command, 2006).

FRAGO 09-1117 explains that the end-state for the JCC-I/A contains three significant objectives. The JCC-I/A must: 1) Integrate warfighter campaign plans and strategy and achieve effects through contracting that further support the warfighters' objectives, 2) Achieve unity of effort, economies of scale that exemplify best business practices, and serve as a model for commerce in Iraq and Afghanistan, and 3) Create synergy with economic activities in local private and public sectors, serving as a catalyst for economic growth and the resulting peace (United States Central Command, 2006).

Although the JCC-I/A has evolved a great deal since its inception, its mission has not changed too much. According to a JCC-I/A brief given at the Naval Postgraduate School in January 2007, the JCC-I/A's mission is to:

> Provide responsive operational contracting support to the Chiefs of Mission, Multi-National Forces—Iraq and Combined Forces Command—Afghanistan to efficiently acquire vital supplies, services and construction in support of the Coalition Forces and the relief and reconstruction of Iraq and Afghanistan; provide capacity building to establish effective contracting and procurement processes within the Iraqi and Afghani Ministries to build and sustain self-sufficient security forces (JCC-I/A, 2007, January).

The organizational structure has been instrumental to the JCC-I/A's success. The JCC-I/A continues making a tremendous impact throughout both theaters of operation by providing diverse contracting support to a multitude of customers. The next section discusses the organization of the JCC-I/A.

7. JCC-I/A Organization

The unexpected lengthy sustainment phase and the significant amount of troops that are still required to secure Iraq have warranted organizational growth and transformation over the JCC-I/A's first two years in command and control. Initially, the commander of the JCC-I/A appointed two principle assistants responsible for contracting (PARC)—one for support of the forces, PARC-Forces (PARC-F), and one for support of reconstruction efforts, PARC-Reconstruction (PARC-R). From the onset, each PARC played a key role in the organization. The fundamental responsibility of each PARC is to provide operational contracting support to his/her respective customer base. However, the customer base for PARC-F and PARC-R is vastly different. As time passed and the JCC-I/A gained more operational control, the role of the PARCs shifted.

The current configuration is that two PARCs remain; however, their responsibilities have shifted. Currently, the JCC-I/A has a PARC for Iraq and another PARC for Afghanistan, each responsible for forces as well as reconstruction support in their respective AOR. Figure 27 shows the current JCC-I/A structure and relationship between customers. The remainder of this section will discuss the PARC for each AOR and his/her relationship within Figure 27.

a. PARC-IRAQ

PARC-Iraq and the Iraq Operations Officer support Multi-National Forces—Iraq (MNF-I), Multi-National Corps—Iraq (MNC-I), and provides contracting support to the State Department's Iraq Reconstruction Management Office (IRMO) and the USACE GRD as they provide for the relief and reconstruction of the country. When the PCO was absorbed into GRD, the JCC-I/A assumed the contracting responsibility for GRD's reconstruction efforts. PARC-Iraq and the Iraq operations officer also provide contracting support to the Multi-National Security Transition Command—Iraq (MNSTC-I) whose primary tasking is to rebuild Iraq's Security Forces. PARC-Iraq's focus is on policy and procedures for theater-wide contracting, whereas the Iraq operations officer manages the daily contracting requirements and issues that occur throughout the regional offices under his control.

b. PARC-Afghanistan

PARC-Afghanistan provides contracting support to the CJTF-76 in order to meet warfighter needs. PARC-Afghanistan also supports the Combined Security Transition Command—Afghanistan (CSTC-A), which is responsible for training and equipping Afghan National Army and Afghan National Police.

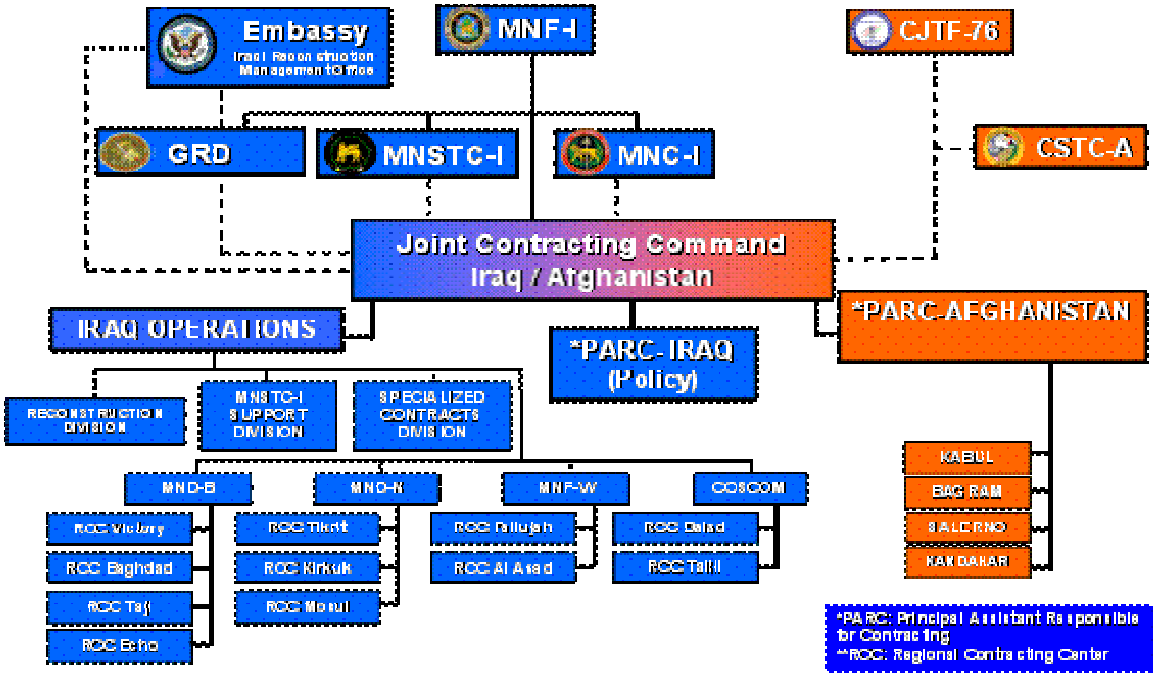

Figure 27. JCC-I/A Support Structure
(From JCC-I/A, 2007, January)

8. Strategic Importance of JCC-I/A

The establishment of JCC-I/A has been a vast improvement over past contingency operations and the previous methods through which the DoD approached contingency contracting. This organization has transformed the way the DoD conducts business in a contingency environment. Unity of effort is essential, and a shift to strategic thinking in terms of procurement will have long-lasting effects.

The formation of the JCC-I/A has proven to be an invaluable asset to the commanders in both Iraq and Afghanistan. In fiscal year 2006, the JCC-I/A accomplished near 27,000 contractual actions valued at approximately $5.7 billion. Moreover, 59% of the contract actions and 39% of the total dollars awarded were awarded to Host Nation companies (2006). Building the local and national economies is an essential element of the commander's strategy, and it has been realized that contracting plays a significant role in this regard.

The JCC-I/A's focus of establishing a self-reliant Iraq is illustrated through close coordination with the Iraqi Ministry of Defense (MOD) and Interior (MOI). One key element that is enabling the JCC-I/A to reach this required end-state is the contracting advisors that the Command has embedded within MOD and MOI. JCC-I/A advisors, along with coalition and State Department advisors, continue to assist MOD and MOI officials with building self-sufficient procurement systems and processes.

The JCC-I/A's continued success throughout USCENTCOM shows that an organization such as this can serve as a model for future joint contingency operations of this magnitude. This holds especially true for operations in which there will be a significant reconstruction effort taking place. As discussed in a previous section, the joint model will not work in every situation. Nonetheless, the lessons learned through the evolution of JCC-I/A can guide future operations in strategically avoiding the adverse effects of a lack of sufficient planning prior to an operation. Planning for contingencies within the CCSP must be incorporated early enough for acquisition professionals to assess the economic environment and market structures of the operational area in terms of vendor base and availability of goods and services. This analysis must not only asses the area of operations but of the geographic region to leverage key suppliers' capabilities.

D. SUMMARY

Operating in a joint environment appears to be a constant struggle from one contingency operation to the next in terms of contracting support. Each service has its own tactics, techniques, and procedures through which to provide contracting support to its customer. This chapter has discussed the meaning of contingency operations, contingency contracting, the military reorganization efforts in the US, the reorganization effects on the unified combatant commanders and the joint planning process, and the myriad problems that have been addressed by contingency contracting officers on the battlefield, as well as by senior acquisition leadership. Chapter Four will show how industry's best practices can be applied to the joint planning process where contingency contracting is concerned. This top-down, strategic view of contingency contracting is one possible solution to the many problems discussed in this chapter.

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IV. FINDINGS: A STRATEGIC APPROACH TO CONTINGENCY CONTRACTING

A strategic approach to contingency contracting requires the DoD to take an enterprise approach to procurement within geographic regions aligning with the combatant commander's strategic objectives. The framework within this chapter emphasizes not only unity and coordination of contracting effort within a contingency theater, but also unity and coordination of contracting within geographic theaters. Conducting spend analysis across geographic regions can rationalize suppliers by segmenting many small requirements into broad categories. These broad categories allow the development of sourcing strategies from which individual commodity strategies can be developed. A geographic procurement strategy will enable the DoD to capture maximum value from suppliers of goods and services. This strategy will greatly improve the planning process and allow the DoD to harness geographic suppliers for future contingencies. Applying a strategic approach presents opportunities for the DoD to identify key geographic suppliers providing maximum value and to use contracting as a strategic tool to inject sustainability and value-creation within supply markets.

This chapter presents two sections. The first section, Strategic Approach: Value, Competitive Advantage, & DoD, identifies a means for the DoD to capture maximum value from goods and services in two ways. First, the Department can lower price by a greater amount than product value. Second, it can increase product value by a greater amount than price. Scarce resources dictate capturing maximum value. Additionally, a strategic approach to contingency contracting requires a strategic approach to acquisition. The second section, Strategic Approach to Contingency Contracting, builds on the value premise to create an acquisition framework for unity and coordination of effort within a regional geographic theater. By harnessing key supplier relationships within geographic regions, the DoD can favorably decrease cost as a function of value and influence supply markets to favorably increase value as a function of cost.

A. STRATEGIC APPROACH: VALUE, COMPETITIVE ADVANTAGE, & DOD

A strategic approach to contingency contracting dove-tails many principles commercial firms use to gain a competitive advantage within markets. The heart of competitive advantage is creating value in excess of what rivals create in terms of cost to customer willingness-to-pay (Ghemwhat & Rivkin, 2006). This section will first present two sub-sections, Value and Competitive Advantage, as a primer detailing commercial principles which apply to the DoD. The final sub-section discusses the DoD and Competitive Advantage; it investigates how the DoD can apply commercial techniques to both lower cost and increase product value for strategic effects—known in the commercial sector as competitive advantage.

1. Value

Firms jockey within markets to create value positions. A transaction's total value is the difference between the customer's willingness-to-pay for a product or service and the supplier's opportunity cost or willingness-to-sell (Ghemwhat & Rivkin, 2006). Figure 28 presents value incorporating the customer, firm, and supplier.

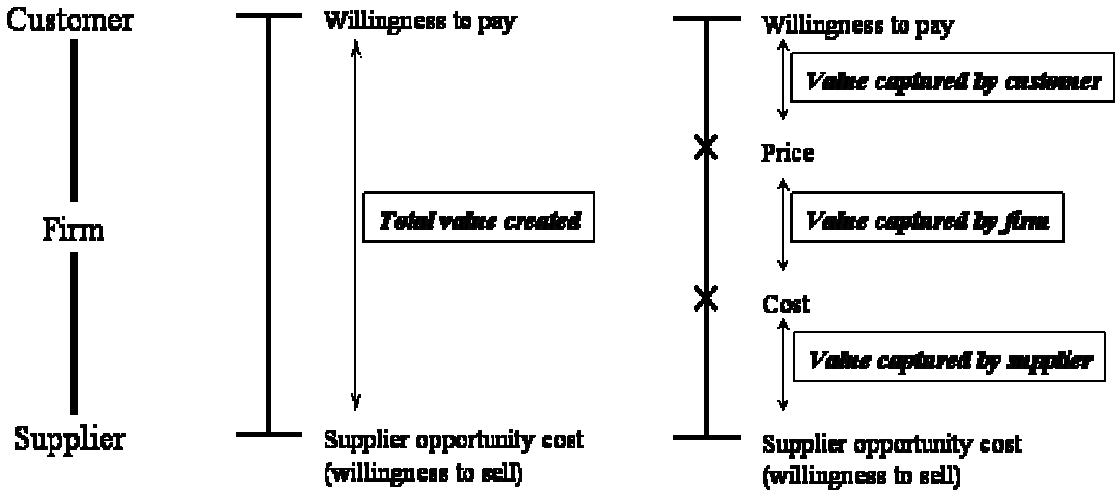

Figure 28. Value
(After Coughlan, 2007)

2. Competitive Advantage

A firm's added value to the marketplace is a concept which plays a large role in determining profit; it also links to competitive advantage. A firm's added value is the wedge it establishes between customer willingness-to-pay and supplier opportunity cost beyond what rivals achieve. The example on the next page uses actual product costs, not supplier opportunity costs, because such data is more readily available and concrete. The firm with the widest added value or wedge has a competitive advantage within the industry (Ghemwhat & Rivkin, 2006).

Figure 29 illustrates two types of competitive advantage, differentiation on the left and low-cost on the right (Coughlan, 2007). In each of the two cases, the firm on the left has a competitive advantage or wedge of one unit. Under differentiation, the firm on the left can set price at three units, providing five units of value to the consumer. The firm on the right must set price at one unit, or its cost to provide a commensurate value to the consumer. The same logic holds true under a low-cost strategy. The firm on the left can set price at three units—forcing the firm on the right to set price at its cost of four units. The firm on the left has a competitive advantage and added value of one unit to the market which would not exist if the firm ceased operations.

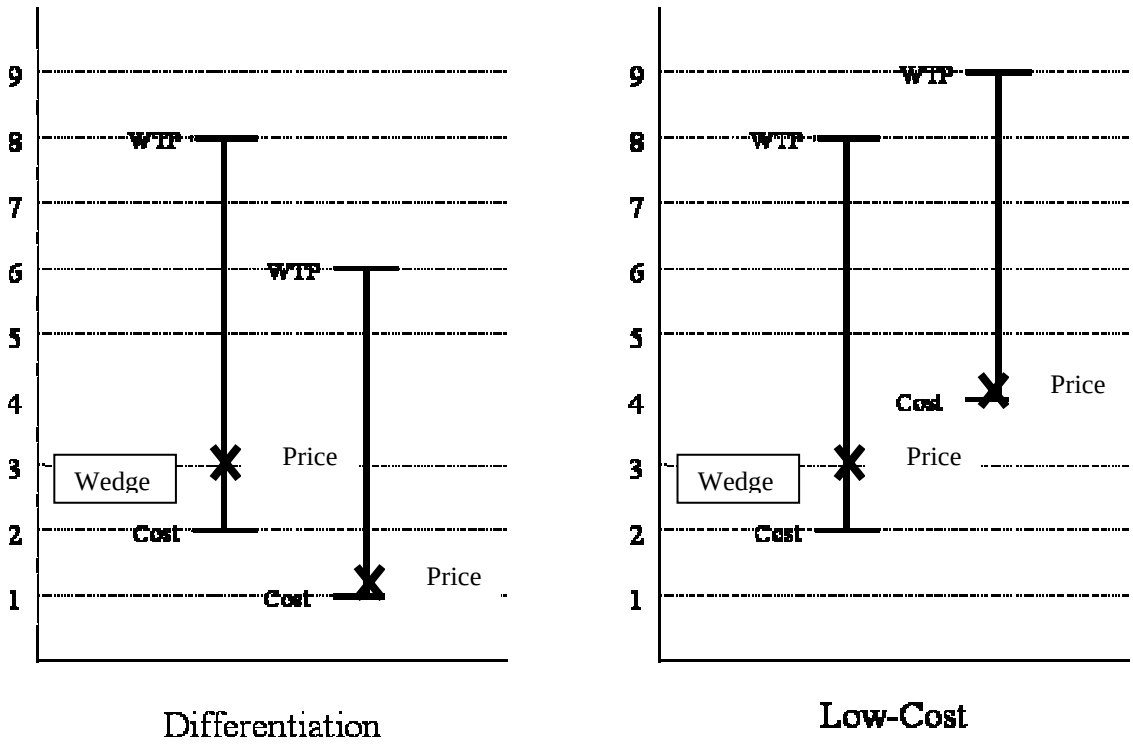

Figure 29. Competitive Advantage
(After Coughlan, 2007)

A firm can establish an advantage in two ways: 1) reduce supplier opportunity/input costs without sacrificing commensurate product value/customer willingness-to-pay or 2) increase product value/customer willingness-to-pay without incurring a commensurate increase to cost (Ghemwhat & Rivkin, 2006).

Generating competitive advantage typically links to industry analysis to devise strategies which neutralize unattractive industry features and accentuate attractive features. Industry analysis, presented in Chapter II, exhibits Porter's five competitive forces shaping strategy: customers, suppliers, potential entrants, substitute products, and existing competitors. Additionally, Porter's value chain, also presented in Chapter II, catalogs a firm's activities (such as procurement, marketing, logistics, etc.), which influence both product cost and willingness-to-pay (Porter, 1980). Competitive advantage can come from better management of supplier relations to streamline supply chains, driving down both supplier opportunity costs as well as actual product input costs of the

producer (Ghemwhat & Rivkin, 2006). Many firms take a strategic approach to procurement as a way to gain a competitive advantage, including those presented in Chapter II: IBM, Dell, John Deere, and Flour.

In addition to industry analysis, creativity in capturing opportunity and competitive advantage exists within markets in the form of entrepreneurial insight (Ghemwhat & Rivkin, 2006). Entrepreneurial insight identifies opportunities within markets to create and capture value. This can come in the form of a new offering, for example. Entrepreneurial insight can also come in the form of mapping existing offering's attributes and the corresponding effects on cost and willingness-to-pay in efforts to capture value (McGrath & MacMillan, 2000). This is similar to mapping value chain activities and the corresponding influence on product cost and customer willingness-to-pay.

3. DoD and Competitive Advantage

Corporations are profit-driven. Identifying opportunities to increase and capture product value equates to increasing the bottom line. The DoD is not profit driven in the same sense; however, the DoD will most likely always have more needs than money. This assumption requires the DoD to identify opportunities to capture more net value from products. The same two ways commercial firms gain competitive advantage are the same two ways the DoD can capture more net value from products in the marketplace. First, the Department can organize purchases to create efficiencies or economies of scale to lower cost, thus capturing more net value and cost savings without sacrificing a greater amount of product value or willingness-to-pay. Second, the DoD can also work with producers on opportunities in the supply markets to favorably increase product value without a larger increase to cost.

Commercial firms and the DoD share many of the same techniques to acquire profit and maximize product value respectively. The remainder of this section discusses three techniques both commercial firms and the DoD use to capture value within markets. Each of these apply to a contingency framework: *Integrated Product Teams (IPTs)*, *Strategic Approach to Procurement*, and *Commodity Strategies*.

a. IPTs

Commercial firms use value chain activities to affect cost and consumer willingness-to-pay positions. The DoD uses Integrated Product Teams (IPT) in the same sense, grouping different job specialties for an acquisition to affect the value captured. The integrating of functional disciplines plays a key role in ensuring each business unit fits within the overall strategy and mission of the organization.

b. Strategic Approach to Procurement

Firms implement a strategic approach to procurement for the purpose of managing internal requirements across business units and external supplier relations. These efforts attempt to favorably influence cost as a function of value. The DoD uses commodity councils and regional purchasing centers to the same effect, trading profits to capture more net value by reducing costs. In either context, this occurs by analyzing organizational requirements spend into categories, as Kraljic presents, according to market complexity and organizational strategic importance to derive individual commodity strategies of varying complexity (Kraljic, 1983). Figure 30 exhibits the paradigm shift between tactical purchasing and strategic sourcing to tailor commodity strategies according to strategic importance and market complexity.

Figure 30. Strategic Model
(From Moore et al., 2002)

c. Commodity Strategies

Laseter, within his seven commodity sourcing strategies, identifies the need to segment spend within products to identify key drivers (Laseter, 1998). This coincides with McGrath and MacMillan's product attribute map, which maps current product attributes, cost-to-value relationships, and opportunities to improve future product offerings. Opportunities exist to improve cost-to-value position by eliminating less desirable attributes and adding desirable attributes to product offerings in pursuit of improving the value the product yields (McGrath & MacMillan, 2000). Each idea relates to the DoD using cost as an independent variable (CAIV) to make product attribute trade-offs as a function of cost-to-value.

Spend analysis across all organizational purchases can rationalize suppliers by categorizing them for specific commodity strategies to improve a cost position, which is strategic. A pure commodity—with which differentiation has no value—is an example which can allow the DoD to improve its cost position through a leverage strategy. However, the analysis is also important to identify supplier and producer markets, which the DoD can strategize to favorably influence product value or the quality and sustainability of the market itself, which is also strategic. An important aspect to a strategic approach and spend analysis is the ability to influence strategic markets of key suppliers critical to the DoD and its mission. The DoD can do this by tailoring commodity strategies for strategic effects.

Thus far, this chapter addresses the DoD's cost and value position to capture more net value from products. The DoD's purchasing power as a whole is a key strategic tool. For example, set-asides for small, underutilized, disabled veteran- and women-owned businesses are a strategic public policy objective. Within the context of a contingency, the DoD's purchasing power can rebuild Iraq as a strategic objective but can also interdict the supply markets within Iraq; this arrangement will play a vital role to ensure the sustainability of the infrastructure. Identifying not only producers of finished products is key to long-term stability, but also identifying the producers of commodities, sub-assemblies, and assemblies within the supply chain.

Creating a competitive advantage or capturing value requires integrating all of the firm's activities in some form of a multi-functional team aligning with overall

strategy. A strategic approach to procurement requires a strategic approach to many other functions within the multi-functional team; this combination will identify requirements yielding the most value as a function of cost to willingness-to-pay. By utilizing Lambert's supply chain, Figure 31, strategists can centralize demand to influence product price as a tier-one consumer. As a tier-three customer, a firm's value is lost through the consumer tiers because of a rise in price with a constant product value. Increasing the amount of value the DoD captures can also come by identifying cost drivers or value drivers of products to strategically wield influence within tiers of supply markets. Such influence seems unattainable as a fragmented buyer at tier three of the consumer market. The remainder of this paper will use this value and competitive advantage primer as a basis for a strategic approach to contingency contracting framework.

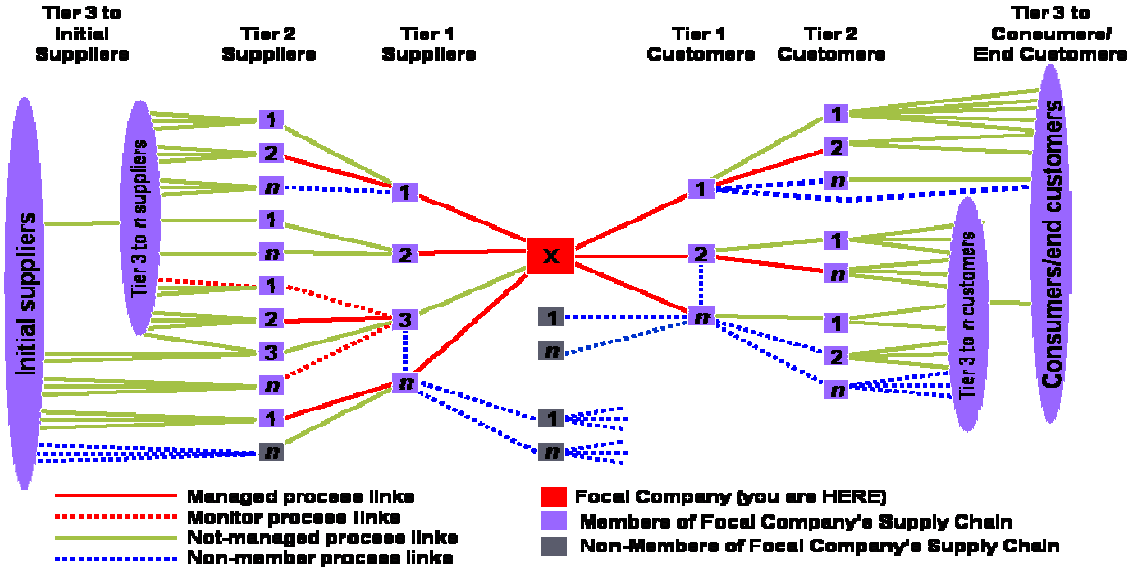

Figure 31. Supply Chain
(From Lambert, Cooper & Pagh 1998)

B. STRATEGIC APPROACH TO CONTINGENCY CONTRACTING

Two possible strategic approaches to contingency contracting present themselves to unite contracting efforts within contingency theaters and the greater geographic commands. The first solution centralizes contract authority within each geographic

COCOM to integrate all contracting activities within a geographic region. The second solution creates an outside organization with contract authority to meet the geographic Combatant Commander's requirements and unify contracting efforts within only a contingency theater.

This paper presents three subsections on a strategic approach to contingency contracting. The first sub-section, *Considerations to a Strategic Approach,* discusses both solutions and the basis for combining attributes from each of the two, creating a hybrid solution. The second sub-section, *Contingency Theater of Operations*, presents the Contingency Acquisition Support Office (CASO), in draft form at USD (ALT), to provide a deployable contingency acquisition capability for geographic Combatant Commanders. The third sub-section, *Combatant Command Area of Responsibility*, presents value and competitive advantage principles to strategically approach acquisition within geographic COCOMs. This integrates and coordinates contracting activities within the greater geographical COCOM; in this way, the strategy can identify widespread opportunities to lower price by a greater amount than willingness-to-pay and increase willingness-to-pay by less than a subsequent rise in cost. Commercial business tools present an opportunity to analyze requirement spend across geographic regions by various agencies to key supplier relationships completing the framework.

1. Considerations to a Strategic Approach

Geographical COCOMs acquiring contracting authority increases responsibilities to a lean war-fighting organization. For instance, contract authority requires staff to deal with oversight from the Inspector General, GAO, and Congress in addition to general *Freedom of Information Act* requests and contract protest disputes. Additionally, individual services support operations within the geographic region of COCOMs to support the contingency theater. For these reasons, centralization of contracting within each geographic COCOM is not a viable solution. The COCOM's role is crucial to integrate acquisition information within its respective AOR. Many opportunities exist to improve the DoD's cost position and/or product value position. Contracting activities purchase requirements from various suppliers across a region at varying costs and

provide varying product value. Coordinating these contracting activities to identify the key regional suppliers requires gathering and sharing essential acquisition information between the services as it relates to the regional geographic area.

The CASO, explained in detail below, provides a strategic approach to uniting contracting activities by surging into a contingency theater. However, key suppliers of strategic importance exist within the larger geographic COCOM AOR. Since the CASO will only surge into a specific area in support of an operation, the CASO and each COCOM must form and maintain strong relationships. It is not feasible for the CASO to have cognizance over every COCOM's regional market conditions.

There is a tremendous opportunity for the DoD to capture more value and supplement the CASO by integrating and harnessing the network of suppliers throughout geographical COCOM AORs. Essential acquisition information can leverage purchases, identify key suppliers, and foster relationships with those suppliers. The hybrid approach presents the CASO within *Contingency Theater of Operations* and integrates regional suppliers within *Combatant Commands Area of Responsibility*—forming a strategic approach to contingency contracting.

2. Contingency Theater of Operations

The Undersecretary of Defense for Industrial Policy is proposing the development of the CASO. The CASO will be a multi-functional organization permanently located at USJFCOM, which would surge into a theater during a contingency operation. The CASO sets up a Joint Acquisition Command (JAC), much like the JCC-I/A, and operates as the acquisition division for the respective COCOM within the affected theater. The CASO will act as Executive Agent, under USJFCOM Title 10 contract authority, to support the Joint Force Commander (JFC) within a declared contingency theater (USD, 2006).

The CASO will function as a Program Office similar to the USAF's AMIC for services and systems program offices specializing in defense systems. Essentially, the combination of "effective contracting and program management in a contingency environment are the channels through which DoD's allocation of national economic power flows to the responsible commander to enable his operational objectives and tactical assignments" (USD, 2006). The CASO unites acquisition efforts, not only those of contingency contracting, within a regional Combatant Commander's theater under

USJFCOM Title 10 authority. This organization, if approved and implemented, will assist COCOMs in planning contingency acquisition requirements. When a contingency occurs, a small cadre of acquisition professionals will surge into the contingency theater of operations—forming a JAC and building up as the level of support necessitates.

3. Combatant Commands Area of Responsibility

COCOM logistics directorates will play a key role in the strategic framework necessary for the DoD to meet the objectives of improving cost positions, increasing product value within theater, and boosting regional economies. The foundation for achieving these objectives is information—acquisition information that service component command's (i.e., USARCENT, USNAVCENT, USCENTAF, USMARCENT) tactical offices throughout a region hold. Integrating this information with commercial business tools at the COCOM level and simply coordinating and disseminating it is a starting point. The JCC-I/A, for example, is successful at capturing information on contract actions within its AOR, but this communication needs to be taken to a larger level.

The DoD needs to develop an acquisition information system that will enable geographic COCOMs to integrate and coordinate the essential acquisition information from all contracting organizations throughout its respective AOR. Through the integration of this information within an AOR, COCOMs can conduct spend analyses to better understand what is actually procured in their respective geographical areas. Classifying goods and services according to their level of strategic importance and market complexity using Kraljic's portfolio model creates broad sourcing categories (Kraljic, 1983). From these broad categories, commodity strategies can be developed for individual goods and services. This will lead to a more focused approach to procurement of the goods and services that potentially provide the strategic effects discussed earlier in this section. This will enable the services to capture more net value from geographic operations supporting contingency theaters from appropriated money to support routine service operations.

An analysis of the information will allow the acquisition leadership at the COCOM level to identify key suppliers of the goods and services that have a strategic impact within the AOR. Identifying the two or three tier-one suppliers will enable

contracting officers to improve their cost positions (from the position they have when they contract with the tier-three or -four suppliers). As discussed in the Cost/Value Position section of this chapter, the middlemen, tier-one through -three suppliers in the Lambert supply chain model (Figure 31), increase the cost while providing little or no additional value to the product. Both the DoD and the contractor can benefit if the Department develops business relationships farther back in the supply chain with those suppliers having the competitive advantage within their relative market.

For the DoD, knowledge of the aggregate demand for an entire COCOM AOR is powerful negotiation information. Suppliers will most likely be more apt to lower prices if they share the strategic view of the DoD's demand. An increased awareness of the DoD's theater-wide demand would also give the product producer better bargaining power within its own supply chains. Additionally, by dealing with the primary suppliers, the DoD is positioned to potentially increase the value gained from certain goods and services while minimally increasing cost. A joint contracting organization during contingency operations, such as the CASO, could leverage these existing supplier relationships during all phases of an operation.

C. SUMMARY

A strategic approach to contingency contracting places two fingers on the pulse of regional supply markets. The beat of the pulse can identify opportunities for the DoD to craft commodity strategies which favorably reduce cost as a function of value and/or favorably increase value as a function of cost, in the commercial sector this creates a competitive advantage. This chapter discussed how a commercial firm strives to capture more value than their competitors to create a competitive advantage and how this principle applies to the DoD. The remainder of the chapter discussed two actions for the DoD to implement a strategic approach to procurement not only in a contingency theater but within a geographic theater.

First, an organization like the CASO must control contracting activities within a contingency theater. The CASO would be the first DoD organization to network with other governmental and non-governmental agencies in order to properly and productively prepare acquisition operations for any future contingency (USD, 2006). Second, spend analysis must integrate the services' network of supply chains with a COCOM's

geographical area, thus identifying areas in which to capture more value. The COCOM's do not need to control the services' acquisition process to support the contingency theater. The acquisition information simply needs to aggregate at a central point to identify opportunities for the DoD to capture more value and achieve regional strategic objectives. This geographic supply network will provide supply base for the CASO to pull supply and services into the contingency theater.

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V. SUMMARY, CONCLUSION & AREAS FOR FURTHER RESEARCH

This chapter provides a brief overview of the findings from the literature review, analysis of contingency contracting, and the recommendations for a strategic approach to contingency contracting. While performing research for this report, the authors noted specific areas worthy of further analysis. These areas will be discussed in further detail later in this chapter. Finally, this chapter includes a conclusion based on the literature that is presented in this report.

A. SUMMARY

Chapter II discussed the evolution of purchasing into supply management, which is a strategic approach to procurement. Purchasing, as a source of competitive advantage, is linked to the recognition of procurement's strategic significance within an organization's strategy. An organization, commercial or military, must acknowledge that purchasing has considerable strategic importance and has the potential to create substantial value to the end-user. From this realization, an organization can centralize enterprise spend. Centralizing spend enables the development of broad sourcing strategies, according to the importance of product and complexity of the market, to leverage buying power. From broad sourcing categories, commodity sourcing strategies can be developed for individual goods and service.

Chapter III examined the stages of a contingency, the COCOMs' functional control of forces, and the planning and execution of contracting. The chapter also noted that COCOMs must rely on services for contracting support since COCOMs have no contract authority. In addition, the chapter provided a review of the problems encountered on the battlefield, past and present, in terms of contracting support. Each service continues to have its own tactics, techniques, and procedures to provide contracting support to its customer while operating in a contingency. Through an extensive examination of AARs, interviews, and governmental reports, the researchers have determined the need for a strategic approach to contingency contracting. OIF lessons learned provided the DoD with constructive information that has developed into the

CASO concept and other initiatives that are transforming the DoD's contingency contracting policy. FRAGOs 09-668, 09-790, 09-1117, in reference to JCC-I, 1) Integrate warfighter campaign plans and strategy to achieve effects through contracting that further support the warfighters' objectives, 2) Achieve unity of efforts, economies of scales that exemplify best business practices, and serve as a model for commerce in Iraq and Afghanistan. As mentioned in Chapter III, a CCO in Kahdahar was able to leverage the vendor base of other CCOs throughout the USCENTCOM AOR despite dramatic manning issues. This type of vendor-base networking can benefit all CCOs within a geographic region and contingency theater.

Chapter IV discussed the researchers' recommendation for a strategic approach to contingency contracting. A centralized contingency acquisition office (i.e., CASO) will align procurement strategy with COCOM's objectives. An organization like the CASO must control contracting activities within a contingency theater. The CASO would be the first DoD organization to network with other governmental and non-governmental agencies in order to properly and productively prepare acquisition operations for any future contingency (USD, 2006). By conducting spend analysis in geographic areas, services can integrate supply chains within a COCOM's AOR—identifying areas where additional value may be captured. The COCOMs do not need to control the services' acquisition process to support the contingency theater. By aggregating acquisition information at a central point, contracting officers will identify opportunities for the DoD to capture more value, achieve regional strategic objectives, and enhance planning for future contingency operations.

B. CONCLUSION

This paper presented the need for a strategic approach to contingency contracting. COCOM's geographic AOR and regional contingency theaters are inundated with contracting support. This presents the DoD with opportunities to capture more value by identifying goods and services that have strategic implications. A central contingency acquisition organization, like the CASO, needs to establish C2 over theater-wide contracting requirements in future operations. Obligation authority is a key strategic tool—one which Combatant Commanders do not possess. This tool needs to align with

the Combatant Commanders' strategic contingency objectives. For example, this strategic tool can not only rebuild a country but can also work to ensure the long-term sustainability of key strategic markets such as cement production, metal works, and facility and infrastructure repair.

In addition, a spend analysis of geographic suppliers can reduce the defense contingency supply base, identifying opportunities to decrease cost by more than the subsequent trade-off to product value or increase product value by more than the subsequent trade-off to cost. In the commercial sector, these trade-offs enhance competitive market position and relate directly to competitive advantage. By identifying key regional suppliers through spend analysis, contingency contracting officers can both aid in planning and executing contingency contracting operations and increase the value the DoD captures in geographic markets.

The spend analysis will provide the CASO-like organization with additional acquisition information for the specific theater of operation. The CASO-like organization senior leadership should be incorporated into the JPEC, or the upper echelons of the planning process, to feed this essential information into the JOPES. This integration would create a more robust CCSP, in which the data could be leveraged by the acquisition authority in-theater (i.e., deployed CASO CCO cell). In addition, a well-documented CCSP will give the CCOs on the battlefield the necessary tool to assist the COCOMs in meeting their strategic objectives.

Furthermore, a spend analysis will enable the DoD to identify opportunities to leverage potential strategic goods and services. The aggregation of strategic goods, coupled with the identification of key regional suppliers, can create value by reducing cost, leveraging the DoD's buying power, and fostering supplier relationships. The key to success is for a CASO-like organization to actively conduct market surveillance, ensuring that the CCSP is aligned with current market conditions. As a result, transition between the four phases of a contingency operation would proceed more smoothly.

This report provided ample support to justify the need for a strategic approach to contingency contracting. Current DoD initiatives are aligning contingency acquisition

support towards a more strategic framework; however, these initiatives are in their infancy stages. All lessons learned from OEF and OIF, as well as the business transformations, need to be incorporated into doctrine to ensure success in future contingency operations.

C. FURTHER RESEARCH

The research in this report focuses on the application of a strategic framework to be used for in-theater procurement, not reach-back contracting, major weapons systems support, or other logistical support contracts awarded and administered stateside (i.e., LOGCAP). However, while conducting research for this report, the authors noted specific areas worthy of further analysis. The following recommendations for further research are directly tied to and further support the need for a strategic approach to contingency contracting.

First, the DoD should conduct a spend analysis for OIF and determine what items, commodities, services can be strategically sourced. The Department can accomplish this by aggregating data contained in various contingency contracting databases/repositories. Kraljic's portfolio model may serve as a useful tool for classifying goods and services into broad sourcing categories. By classifying theater purchases, decision-makers could have better insight into the following questions that may have strategic implications:

- How can procurement fit within and assist a centralized acquisition office's efforts to improve markets (such as cement, oil well maintenance, and water treatment) within the context of strategically sustaining a country?
- What goods and services might business systems identify as widespread geographic candidates for improvements in cost positions and/or improvements in value positions?
- What other DoD functions can form a tighter strategic fit with procurement, such as procuring more requirements like steel within regional supply markets to remove requirements from airlift?

Second, spend analysis is a critical tool that can identify key acquisition information—enabling the DoD leadership to leverage their buying power. This analysis is essential for

laying the foundation of a strategic contingency acquisition framework. The next area recommended for additional research is determining what activity, agency, organization is best suited to establish this framework.

As mentioned earlier in this study, the DoD has a draft concept paper for the establishment of an organization, CASO, that could potentially serve as the catalyst for building a strategic framework to be applied in contingency operations. Further research could examine the relationship between the J-4's in each respective COCOM and the CASO activity. After analyzing the integration of the CASO with each COCOM J-4, decision-makers could utilize the results to determine the feasibility of establishing one enterprise-wide CASO by answering the following questions:

- Would it be more feasible to have a CASO-like organization structure in each geographical COCOM vice one enterprise-wide CASO?
- Will integrating a CASO-like organization into each COCOM add value by having an acquisition structure that serves as an AOR supply-chain expert?
- Will a single CASO have the ability to manage the necessary information being generated from six geographical COCOMs for any given contingency operation?

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LIST OF REFERENCES

Aeronautical Systems Center. (2006). Fact sheet. Retrieved May 25, 2007, from http://www.wpafb.af.mil/library/factsheets/factsheet.asp?id=6162

AMIC Acquisition Management Integration Center. (2007). Essential elements to successful execution of strategically sourced services. Briefing presented at NPS 2007 Acquisition Research Symposium.

Atkinson, W. (2007, May). Fluor designs a flexible procurement organization for the long haul. Purchasing Magazine, (May). Retrieved May 11, 2007, from www.purchasing.com

Bailey, C. R. (2004). After *action report: Tallil*. Retrieved January 19, 2007, from https://acc.dau.mil

Benza, S. (2007). Briefing*: Strategic sourcing: "A process...A cultural change."* Washington DC: United States Air Force. Retrieved March 6, 2007, from https://www.safaq.hq.af.mil/contracting/restricted/transformation/

Bernstein, M. (2006). Fluor's strategic supply chain partners span continents and industries. [Electronic version]. *World Trade, 19*(9), 56-61. Retrieved May 11, 2007, from EBSCO database.

Burt, D. N., Dobler, D. W., & Starling, S. L. (2003). *World class supply management: The key to supply chain management* (7th ed.). Boston: McGraw-Hill/Irwin.

Carter, J. R., & Narasimhan, R. (1996). Is purchasing really strategic? [Electronic version]. *International Journal of Purchasing & Materials Management, 32*(1), 20-28. Retrieved June 11, 2007, from EBSCO database.

Cavinato, J. L., Flynn, A. E., & Kauffman, R. G. (2006). *The supply management handbook* (7th ed.). New York, NY: McGraw Hill.

Chen, I. J., & Paulraj, A. (2004). Understanding supply chain management: Critical research and a theoretical framework. [Electronic version]. *International Journal of Production Research, 42*(1), 131-163. Retrieved June 11, 2007, from EBSCO database.

Cole, R. H., Poole, W. S., Schnabel, J. F., Watson, R. J., & Webb, W. J. (2003). *The history of the unified command plan, 1946-1999*. Washington, DC: Joint History Office, Office of the Chairman of the Joint Chiefs of Staff. Retrieved April 30, 2007, from DTIC database, http://stinet.dtic.mil/cgi-bin/GetTRDoc?AD=A426162&Location=U2&doc=GetTRDoc.pdf

Cooper, M. C., & Ellram, L. M. (1993). Characteristics of supply chain management and the implications for purchasing and logistics strategy. [Electronic version]. *International Journal of Logistics Management, 4*(2), 13-24. Retrieved June 11, 2007, from EBSCO database.

Coughlan, P. J. (2007). Strategic management. Lecture: Essentials of strategic management. Monterey, CA: Naval Postgraduate School.

Cunnane, J. L. (2005). The evolution of contracting in Iraq March 2003-March 2005. *Journal of Contract Management* (Summer), 47-56. Retrieved April 21, 2007, from http://www.ncmahq.org/publications/docs/4_Cunnane.pdf

Defense Acquisition University. (2005a). *Contingency contracting student text*. Lesson 2: Types of contingencies. Retrieved April 16, 2007, from https://acc.dau.mil/CommunityBrowser.aspx?id=18217

Defense Acquisition University. (2005b). *Contingency contracting student text.* Lesson 7: Deliberate and crisis action planning. Retrieved April 16, 2007, from https://acc.dau.mil/CommunityBrowser.aspx?id=18217

Defense Acquisition University. (2005c). *Glossary of defense acquisition acronyms & terms* (12th ed.). Ft Belvoir, VA: Defense Acquisition University Press.

Defense Acquisition University. (2006). *Defense acquisition guidebook* (1.6th ed.). Retrieved October 9, 2006, from https://akss.dau.mil/dag/

Defense Business Transformation Agency. (2006a). *Business agility and accountability: Driving transformation forward.* Retrieved May 25, 2007, from http://www.defenselink.mil/dbt/mission_agility.html

Defense Business Transformation Agency. (2006b). *Fact sheet: Business transformation overview.* Retrieved May, 25, 2007, from http://www.defenselink.mil/dbt/facts_overview.html

Defense-link. (2007). Unified Combatant Commands. Retrieved April 15, 2007 from defenselink.mil/specials/unifiedcommand

Draft: PCO history. (2007). Washington, DC.

FAR (2007). *Federal acquisition regulation.* Retrieved April 7, 2007, from http://www.arnet.gov/far/

Fluor Corporation. (2004). *The strategic value of procurement: A CEO's perspective.* Retrieved May 12, 2007, from http://www.fluor.com/media/caps+presentation+final+3-04.pps

Gelhausen, M. (2004). FLUOR vice president discusses work projects in Iraq. [Electronic version]. *Cost Engineering, 46*(10), 32-34. Retrieved May 11, 2007, from EBSCO database.

Ghemawat, P., & Rivkin, J. W. (2006). Creating competitive advantage (9-798-062). Boston, MA: Harvard Business School.

Goldwater-Nichols: Public Law 99-433. (1986). Retrieved March 27, 2007, from http://www.ndu.edu/library/goldnich/99433pt1.pdf

Houglan, D. H. (2006). Evolution of the joint contracting command-Iraq/Afghanistan. *Army AL&T,* (January-March), 22-25.

ITCC. (2007). *About information technology commodity council.* Retrieved May 29, 2007, from https://www.gunter.af.mil/aq/aqt/afitcc/about.aspx

JCC-I/A. (2007). *Contracting as a force multiplier for commanders: Presentation on the joint contracting command-Iraq/Afghanistan.*

Kapuscinski, R., Zhang, R. Q., Carbonneau, P., Moore, R., & Reeves, B. (2004). Inventory decisions in Dell 's supply chain. [Electronic version]. *Interfaces, 34*(3), 191-205. Retrieved May 11, 2007, from EBSCO database.

Killen, K. E., & Wilson, G. P. (1992). *An analysis of contracting actions by United States based Department of Defense organizations to support Operations Desert Shield and Desert Storm*. Wright-Patterson Air Force Base, OH: Air Force Institute of Technology.

Kraljic, P. (1983). Purchasing must become supply management. *Harvard Business Review, 61,* 109-117.

Lambert, D. M. (2004). The eight essential supply chain management processes. [Electronic version]. *Supply Chain Management Review, 8*(6), 18. Retrieved June 10, 2007, from EBSCO database.

Lambert, D. M., Cooper, M. C., & Pagh, J. D. (1998). Supply chain management: Implementation issues and research opportunities. [Electronic version]. *International Journal of Logistics Management, 9*(2), 1. Retrieved May 25, 2007, from ProQuest database.

Laseter, T. M. (1998). *Balanced sourcing: Cooperation and competition in supplier relationships* (1st ed.). San Francisco: Jossey-Bass Publishers.

Lederman, G. N. (1999). *Reorganizing the Joint Chiefs of Staff: The Goldwater-Nichols Act of 1986*. Westport, Conn: Greenwood Press.

Luse, C., Madeline, C., Smith, L., & Starr, S. (2005). *An evaluation of contingency contracting: Past, present, and future*. Monterey, CA: Naval Postgraduate School. Retrieved April 27, 2007, from BOSUN database. http://bosun.nps.edu/uhtbin/cgisirsi.exe/oSuAo2CpJV/SIRSI/28100009/523/9526

Mankiw, N.G. (2004). *Principles of economics* (3rd ed.). Mason, Ohio: Thomson/South-Western.

McGrath, R.G., & MacMillan, I.C. (2000). *The entrepreneurial mindset: Strategies for continuously creating opportunity in an age of uncertainty*. Boston, Mass: Harvard Business School Press.

Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., et al. (2001). Defining supply chain management. *Journal of Business Logistics, 22*(2), 1-25.

Moody, J., G. (2004). *After action report: Balad*. Retrieved January 14, 2007, from https://acc.dau.mil

Moore, N. W., Baldwin, L. H., Camm, F., & Cook, C. R. (2002). *Implementing best purchasing and supply management practices: Lessons from innovative commercial firms*. Santa Monica, CA: RAND. Retrieved March 22, 2007, from http://www.rand.org/pubs/documented_briefings/2005/DB334.pdf

Nagle, J. F. (1992). *A history of government contracting*. Washington, DC: George Washington University.

Nelson, D., Moody, P. E., & Stegner, J. (2001). *The purchasing machine: How the top ten companies use best practices to manage their supply chains*. New York: Free Press.

Office of Management and Budget. (2005, May 20). *Implementing strategic sourcing.* Memorandum. Washington, DC: author.

Office of the Secretary of Defense. (2005). *Defense procurement: DoD-wide strategic sourcing program.* Washington, DC: Nielson, L. W.

Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics. (2007). Report to the Office of Management and Budget: Implementing Strategic Sourcing. Washington, DC.

Porter, M. E. (1979). How competitive forces shape strategy. [Electronic version]. *Harvard Business Review*, *57*(2), 137-145. Retrieved April 30, 2007, from EBSCO database.

Porter, M. E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. New York: Free Press.

Porter, M. E. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York: Free Press.

Porter, M. E. (1991). Towards a dynamic theory of strategy. [Electronic version]. *Strategic Management Journal*, *12*(8), 95-117. Retrieved June 10, 2007, from EBSCO database.

Porter, M. E. (1996). What is strategy? *Harvard Business Review*, *74*, 61-78.

Rendon, R. G. (2005). Commodity sourcing strategies: Processes, best practices, and defense initiatives. *Contract Management*, (Summer), 7-20.

Rockow, B. A. (2003). *After action report: Kandahar*. Retrieved May 2, 2007, from https://acc.dau.mil

Shah, J. B. (2001). Dell makes good on inventory vow—creation of three SCM organizations has helped boost efficiency. [Electronic version]. *Interfaces*, (1286), 52. Retrieved May 11, 2007, from ProQuest database.

Shrader, C. R. (1999). *Contractors on the battlefield*. Arlington, VA: AUSA Institute of Land Warfare. Retrieved May 7, 2007, from http://www.aUSa.org/PDFdocs/lpe99-6.pdf

Smock, D. (2006). Deere takes a purchasing magazine medal of professional excellence. *Purchasing Magazine* (September), 26-35. Retrieved May 11, 2007, from www.purchasing.com

Special Inspector General for Iraq Reconstruction. (2006). *Iraq reconstruction: Lessons in contracting and procurement* (No. 2). Arlington, VA: Special Inspector General for Iraq Reconstruction. Retrieved January 7, 2006, from http://www.sigir.mil/reports/lessons.aspx

Thaxton, E. (2004). *After action report: Bagram*. Retrieved May 2, 2007, from https://acc.dau.mil

United States Central Air Forces (2007). USCENTAF mission orientation. Shaw AFB, SC: Pigeon, N. Briefing presented at 2007 ACC Contracting Conference. Retrieved March 30, 2007, from https://a7.acc.af.mil/a7k/register/Default.asp

United States Central Command. (2004). *FRAGO 09-668*.

United States Central Command. (2005). *FRAGO 09-790.*

United States Central Command. (2006). *FRAGO 09-1117.*

United States Central Command. (2007). *USCENTCOM J4 contracting branch: Joint contracting in the CENTCOM AOR*. Briefing presented at 2007 ACC Contracting Conference. Newport News, VA: Witkoff. J. Retrieved March 30, 2007, from https://a7.acc.af.mil/a7k/register/Default.asp

United States Code: Armed Forces. (2004). Retrieved May 2, 2007, from http://USCode.hoUSe.gov/

United States Department of Defense. (2003a, May 12). *The defense acquisition system: Directive 5000.1*. Washington, DC: author.

United States Department of Defense. (2003b, May 12). *Operation of the defense acquisition system: Instruction 5000.2*. Washington, DC: author.

United States Department of Defense. (2006). *Report to Office of Management and Budget: Implementation of strategic sourcing initiatives*. Washington, DC: author. Retrieved June 10, 2007, from http://www.defenselink.mil/dbt/products/Strategic_Sourcing_012706.pdf

United States General Accountability Office. (2006). *Rebuilding Iraq: Continued progress requires overcoming contract management challenges* (GAO-06-1130T). Washington, DC: author. Retrieved January 13, 2007, from http://www.gao.gov/new.items/d061130t.pdf

United States General Accountability Office. (2007). *Defense acquisitions: Tailored approach needed to improve service acquisition outcomes* (GAO-07-20). Washington, DC: author. Retrieved March 24, 2007, from http://www.gao.gov/new.items/d0720.pdf

United States Joint Forces Command. (2001). *JP 0-2: Unified action armed forces.* Suffolk, VA: Joint Warfare Center. Retrieved April 30, 2007, from http://www.dtic.mil/doctrine/jppersonelseriespubs.htm

United States Joint Forces Command. (2000). *JP 1: Joint warfare of the armed forces of the United States*. Suffolk, VA: Joint Warfare Center. Retrieved April 30, 2007, from http://www.dtic.mil/doctrine/jppersonelseriespubs.htm

United States Joint Forces Command. (2007). *Draft JP 4-10: Contracting and contractor management in joint operations*. Suffolk, VA: Joint Warfare Center. Retrieved June 3, 2007, from https://ca.dtic.mil/doctrine/jel/dftpubs/logistics.htm

USD: Office of the Deputy Under Secretary of Defense (Industrial Policy). Draft contingency acquisition support office concept paper (Vers. 9). Washington, DC: author.

Winiecki, R. D. (2005). *After action report: Camp victory*. Retrieved January 21, 2007, from https://acc.dau.mil

Wood, S. (2006). *Africa command will consolidate US efforts on continent.* American Forces Press Service. Retrieved May 11, 2007, from http://www.defenselink.mil/News/NewsArticle.aspx?ID=2946

Zamparelli, S. J. (1999). *Contractors on the battlefield: What have we signed up for?* (Accession Number ADA395505). AIR UNIV MAXWELL AFB AL: author.

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